(2)

# BUSINESS PLANNING MODEL

# PROGRAMMER'S GUIDE

December 1993

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Under Contract:
DAAK70-92-D-0003, Task Order 0001

Distribution Statement A:
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# CHAPTER 1

# PROGRAMMER'S OVERVIEW

## *1.1 INTRODUCTION*

This Business Planning Model (BPM) Programmer's Guide is provided to assist future programmers in understanding and properly maintaining the BPM code. If you are interested in how the program appears to the user, you should refer to the BPM User's Guide. If you are interested in the exact workings of the program, you should carefully examine the Methodology Summary, Appendix C, of the User's Guide, and the corresponding documented source code. This Programmer's Guide will help you to identify where in the program source code to find each particular program part, and how those parts fit together into the single BPM program. It assumes that you understand both MS-DOS and the Clipper programming language.

The programming of the BPM was begun in February 1992, and is currently in Version 3.4. The program includes five principal modules:

(1) Data Entry Module - this provides the user the ability to collect, review, edit, and print the business planning data.

(2) Baseline Analysis Module - this provides on-screen analyses which combine information from the various data files, and access to specialized reports.

(3) What If Analysis Module - this provides the user with three "what if" analysis tools which have been specifically tailored to work with this data.

(4) Utilities Module - this provides a number of useful utilities that are occasionally helpful to make the program work smoothly.

(5) System Administrator Module - this provides the System Administrator access to the features he needs to configure the system and maintain the control lists.

The BPM was originally written in Clipper Summer 87 (S87) Version, and linked with the Blinker Version 2.0 dynamic linker. Clipper uses data files which match the structure of DBase III+ data files. Thus, the Clipper data files can be readily used in DBase (III+ and IV), and Foxbase/FoxPro. Because this format is so common, these data files can be readily imported into almost all commercial DBMS, Spreadsheet, Statistics, and Graphics software packages. In keeping with the task order provisions, it has been recompiled and tested in the latest version of Clipper (Version 5.2).

## 1.2 PROGRAM CODE FILES

The following eighteen (18) source code files (*.prg) comprise the BPM program. Each is listed along with a brief description of what types of routines it contains. Several files were not specifically created for the BPM but have been adapted from previous Clipper programs written by BRTRC. Chapter 3 provides a complete index of the procedures and functions contained in each of these files. Chapters 4 and 5 provide a cross reference of the procedures and functions indicating how the procedures and functions are interrelated.

The first seven files contain the main program and the entry points for the five modules described above.

BPM.PRG MAIN PROGRAM
This program executes the Business Planning (BPM) model. The main menu is defined here and the five modules are accessed from here. It is kept as small as possible to maximize the performance of the linker.

BPM_EDIT.PRG DATA ENTRY MODULE
This file contains all the data file edits for the user files. These edit screens are for the factors, revenue, major capital investments, major externals, support contracts, internal transfers, personnel, regular capital investments, and core capabilites.

BPM_ANAL.PRG BASELINE ANALYSIS MODULE
This file is the entry point for the Baseline Analyses. It contains the analysis screens and the computation routines.

BPM_WHA1.PRG WHAT IF MODULE, PART 1
This file, along with bpm_wha2.prg, contain the What If routines. There are three types of What Ifs. This file contains the Revenue Pessimism and the Optimize Personnel What Ifs.

BPM_WHA2.PRG WHAT IF MODULE, PART 2
This file contains the Center TDA What If. It was separated from bpm_wha1.prg to keep the files to a manageable size.

BPM_ASST.PRG ASSORTED FUNCTIONS MODULE
This file contains the Utility functions and other features for managing the BPM data.

BPM_SYST.PRG SYSTEM ADMINISTRATOR MODULE
This file contains the System Administrator edits and other control features. Only the System Administrator is allowed to execute these functions.

These modules are supported by seven other files which provide general capabilities.

BPM_GENL.PRG GENERAL FUNCTIONS
This file contains the data edit validation functions and the general purpose math and array handling routines which were developed specifically for the BPM.

BPM_OPEN.PRG OPENING ROUTINES
This file contains the opening routines for the BPM. These are called only on startup of the program, so they have been segregated here. The first half of the file includes the file handling and defining functions which are specifically tailored for the BPM. They link closely with the generic file handling functions defined in filehand.prg. The second half of this file contains the Function and Lab selection routines which are initialized at program startup.

BPM_REPT.PRG GENERAL REPORTS
This file contains the general reports and report drivers, which do not otherwise fit into the bpm_rep1.prg, bpm_rep2.prg, bpm_rep3.prg, and bpm_amcc.prg program files. You will find reports in here for the baseline Lab and Center analysis, core capabilities, and average factors.

BPM_REP1.PRG SPECIAL REPORTS MODULE
This file contains the special analysis reports for total expenses, balances, sources and uses, and Tech Support amounts. These were segregated from those in bpm_rept.prg because they are particularly lengthy.

BPM_REP2.PRG GENERIC LISTING REPORTS MODULE
This file contains the Generic Listing Report Writer and all the functions which support the report writer.

BPM_REP3.PRG GENERIC TOTALS REPORTS MODULE
This file contains the Generic Totals Report Writer. Much of this generic report mirrors the procedures used in the Generic Listing Report Writer.

BPM_AMCC.PRG AMC CHARTS MODULE
This file contains the reports for the AMC mandated business planning charts.

The final four program files contain the generic routines used in the BPM, which were developed by BRTRC for use in every Clipper application. They provide most of the user interface capabilities.

BROWSER.PRG BROWSER ROUTINES
This implements a generic data file browser. The programmer can control what fields are displayed and which can be edited. This is used only by the System Administrator.

FILEHAND.PRG FILE HANDLER ROUTINES
These are generic file handling routines used in BPM. This module implements the file handling (defining, opening, closing, indexing, deleting) features of the enhanced programmer interface. This is the non-network version.

TEXTVIEW.PRG TEXT FILE VIEWER ROUTINES
This implements a generic text file viewer. This is used to view the reports which are printed to text files.

UTILITY.PRG GENERAL PURPOSE ROUTINES
This module implements the general purpose utility routines for the enhanced programmer interface. This includes the menuing system, the help system, the windowing system, the report destination system, and many other common routines which are used throughout the BPM.

There are over 400 separate procedures and functions in the BPM program. You should refer to Chapter 3 for a complete listing of the functions contained in each of the program files, and an alphabetical listing of where to find each function. Most of these functions use other functions as building blocks. Therefore, you will need to use the cross references provided in Chapters 4 and 5 to map out the implications of changes in any one program element.

The BPM program files are all ASCII text files. If you want to edit them, you should be careful to use an ASCII text editor. Many good ones are commercially available (These were written using the Norton Editor). You might also consider the 'edit.exe' program included with MS-DOS (Version 5.0 and above).

## *1.3 COMPILING AND LINKING IN CLIPPER S87*

The BPM is compiled as a finished product using the procedures described below. This procedure yields the minimum sized executable program which is important because of run-time memory considerations. Three files (m_bpm.bat, m_bpm.clp, and m_bpm2.clp) contain the compilation instructions, and the fourth (m_bpm.lnk) the linking instructions. As you will see, these files presume that you have set your computer up with the following directory names and contents:

\clipper — Contains the Clipper compiler and libraries, and the object files handles, aa_cdosv, aa_set, aa_files, sysinfo, and tt_clipa. These object files are discussed further in paragraph 1.5.

\clipper\bpm — Contains the program files (*.prg) and these compilation and linking files.

\clipper\blinker — Contains the Blinker linker program.

To compile and link the BPM, all you have to do is execute the batch file m_bpm.bat shown below.

**File m_bpm.bat:**

```
set lib=\clipper\
\clipper\clipper bpm -m -q -l
\clipper\clipper @m_bpm -m -q -l
\clipper\clipper @m_bpm2 -m -q -l
\clipper\blinker\blinker @m_bpm.lnk
```

This batch file:

(1) Compiles the main program bpm.prg to produce the object file bpm.obj. The parameters -m and -q keep the compiler quiet, and the parameter -l tells Clipper not to include debugger line numbers (which should be included in development and testing runs but adds significantly to the size of the program). The bpm.prg file is compiled separately to keep it as small as possible. This is to take advantage of the dynamic loading capabilities of the Blinker linker.

(2) Compiles together the program files listed in m_bpm.clp (listed below) to produce the object file m_bpm.obj. The Clipper compiler knows when the @filename

syntax is used, that the filename refered to is a .clp file. All this file contains is a list of the .prg files to be compiled together. It is helpful to compile the files together into a single object file because it makes the resulting program smaller. There are two .clp files referenced in this batch file because there is a DOS limit of 256 procedure/ function references in an object file. The BPM has over 400 procedures and functions, hence the need for two files.

(3) Compiles together the program files listed in m_bpm2.clp (listed below) to produce the object file m_bpm2.obj.

(4) Executes the Blinker linker with the linking script contained in m_bpm.lnk (listed below) to produce the executable bpm.exe.

**File m_bpm.clp:** This file contains a list of the .prg files which are compiled together to produce m_bpm.obj.

```
bpm_edit.prg
bpm_asst.prg
bpm_open.prg
bpm_anal.prg
bpm_syst.prg
bpm_genl.prg
textview.prg
utility.prg
filehand.prg
```

**File m_bpm2.clp:** This file contains a list of the .prg files which are compiled together to produce m_bpm2.obj.

```
bpm_wha1.prg
bpm_wha2.prg
bpm_rept.prg
bpm_rep1.prg
bpm_rep2.prg
bpm_rep3.prg
bpm_amcc.prg
browser.prg
```

It does not matter in which order the program files are listed in these two .clp files. It also does not matter what program files are included in each of the two .clp files. It is only important that all the program files are included and that neither of the two object files which are created has more than 256 procedures or functions.

The final step in the process of building a new executable file is the linking together of the object files. Blinker 2.0 is the linker used because of its exceptional dynamic loading capabilities.

**File m_bpm.lnk:** This file contains the linking script used by Blinker to link the bpm object files into an executable. You should refer to the Blinker 2.0 manual for definitions of the script structure and purpose of the special Blinker statements.

```
file bpm.obj
file \clipper\handles.obj
file \clipper\aa_cdosv.obj
file \clipper\aa_set.obj
file \clipper\aa_files.obj
file \clipper\sysinfo.obj
file \clipper\tt_clipa.obj
output bpm.exe
BLINKER EXECUTABLE CLIPPER F55;V20;R16;E0
BLINKER PROCEDURE DEPTH 40
BLINKER OVERLAY OPSIZE 80
BLINKER INCREMENTAL OFF
MAP=bpm.map S
beginarea
  file m_bpm.obj
  file m_bpm2.obj
  allocate \clipper\extend
endarea
lib \clipper\clipper
```

You should feel free to modify these four compilation and linking files to match the directory structures in your computer. Remember to use an ASCII text editor when you edit these files.

## *1.4 COMPILING AND LINKING IN CLIPPER 5.2*

Compiling and linking in Clipper 5.2 requires a different set of compilation and linking files. The scripts shown below assume the default installation of Clipper 5.2, and the placement of the program files and the two files below into the same subdirectory. The default installation creates a number of environment variables and places the Clipper program directories into the DOS path.

These scripts also assume the use of the RTlink linker which is provided with Clipper. At present, RTlink is used with Clipper 5.2 in place of Blinker 2.0 because it has slightly better dynamic loading capabilities with Clipper 5.2 object files. Since the BPM is a large program, memory management is the critical consideration in linker selection. Future releases of Blinker may change this assessment.

The BPM program is compiled and linked by typing 'rmake bpm' from the DOS command line when the current directory is your program directory.

**File bpm.rmk:** This file is a script for the 'rmake' program provided with Clipper 5.2. Rmake, like all 'make' programs, checks the currency of the specified object files with respect to the corresponding program files and recompiles them only if they are not current. Then, it executes the linker to rebuild the executable if any of the object files are newer.

```
//
//    BPM.rmk
//
//    NOTE:
//       In order to build BPM with debugger (CLD) support you must
//       define the macro name DEBUG.  This can be accomplished as
//       follows:
//
//       RMAKE BPM /dDEBUG
//

// Determine if DEBUGging is enabled
#ifdef DEBUG
   CompOptions := /b /m
#else
   CompOptions := /m
#end

.prg.obj:
    clipper $< $(CompOptions)

bpm.obj:        bpm.prg
bpm_edit.obj:   bpm_edit.prg
bpm_asst.obj:   bpm_asst.prg
bpm_open.obj:   bpm_open.prg
bpm_anal.obj:   bpm_anal.prg
```

```
bpm_syst.obj:   bpm_syst.prg
bpm_genl.obj:   bpm_genl.prg
bpm_wha1.obj:   bpm_wha1.prg
bpm_wha2.obj:   bpm_wha2.prg
bpm_rept.obj:   bpm_rept.prg
bpm.rep1.obj:   bpm_rep1.prg
bpm_rep2.obj:   bpm_rep2.prg
bpm_rep3.obj:   bpm_rep3.prg
bpm_amcc.obj:   bpm_amcc.prg
browser.obj:    browser.prg
textview.obj:   textview.prg
utility.obj:    utility.prg
filehand.obj:   filehand.prg

bpm.exe:      bpm.obj  bpm_edit.obj  bpm_asst.obj  bpm_open.obj  bpm_anal.obj  \
              bpm_syst.obj  bpm_genl.obj  bpm_wha1.obj  bpm_wha2.obj  \
              bpm_rept.obj  bpm.rep1.obj  bpm_rep2.obj  bpm_rep3.obj  \
              bpm_amcc.obj  browser.obj  textview.obj  utility.obj  filehand.obj
   rtlink bpm.lnk
```

The linking script for RTlink is simply a list of the object files to be linked (without the .obj extension), followed by the two needed libraries.

### File bpm.lnk

```
file bpm
file bpm_edit
file bpm_asst
file bpm_open
file bpm_anal
file bpm_syst
file bpm_genl
file bpm_wha1
file bpm_wha2
file bpm_rept
file bpm.rep1
file bpm_rep2
file bpm_rep3
file bpm_amcc
file browser
file textview
file utility
file filehand
file \clipper5\obj\tt_clipa
file \clipper5\handles
file \clipper5\aa_cdosv
file \clipper5\aa_files

lib  clipper
lib  extend
```

Again you may need to modify these compilation and linking scripts to match the directory structures in your computer. Remember to use an ASCII text editor when you edit these files.

## 1.5 FILE TYPES AND IDENTIFICATION

This section provides a brief overview of the types of files that the BPM uses. The programmer needs to be aware of each of them when maintaining and modifying the program.

The following file types exist in the BPM user's directory:

bpm.exe — This is the program executable file.

*.cfg — These are BPM configuration files (bpm.cfg and opt.cfg). They tell the program the current state of certain critical variables (like the current Base Year). They should be delivered with the program executable (bpm.exe).

*.dbf — These are the BPM data files. They are standard DBase III+ format files. They should be retained and backed up regularly.

*.nt* — These are the BPM index files. These are Clipper generated index files, which are not compatible with DBase or Foxbase index files. They can be deleted if needed, since they are rebuilt each time the program is run (if they are missing or outdated).

*.mem — These are the BPM memory variable files. They are used to store the report definitions for the user-defined listing and totals reports. They can be deleted since they can always be rebuilt from within the program.

*.txt — These are BPM reports which have been printed to files.

The following file types exist in the BPM programmer's directory.

*.prg — These are the BPM program source code files.

*.obj — These are the compiled object files. They are rebuilt each time the program is compiled.

m_bpm.* — These are the BPM compilation and linking files (Clipper S87).

bpm.* — These are the BPM compilation and linking files (Clipper 5.2).

The following object files exist in the Clipper directory. They have been provided along with the 18 BPM source code files.

aa_files.obj Determines the number of available file handles.

aa_cdosv.obj Determines the DOS version. It is only needed if the version is less than 3.1, to create the additional file handles. Old versions of DOS limited the number of open file handles to 20.

handles.obj Creates additional file handles in old versions of DOS.

aa_set.obj Allows the detection of the state (on or off) of the cursor. It is replaced by a built in function in Clipper 5.2. It is used in the help system to return the cursor to the original state.

sysinfo.obj Needed by aa_set.obj.

tt_clipa.obj Provides for shaded windows.

# CHAPTER 2

# BPM DATA FILES AND STRUCTURES

This chapter documents the twenty one (21) data structures used by the Business Planning Model (BPM). They are listed here, along with their principal indexes, to help you maintain the data files. If you decide to modify these structures, also note the function 'buildfile' in bpm_open.prg and make sure that it also reflects these modifications.

Note that the field 'foe' represents the organization level "Function" in the model. Also note that the field 'year0' is the base year. It represents the year corresponding to the first element of the numerical arrays (e.g., fact_*, rev_*, etc.). For example, if the base year is 1993, then rev_0 is the revenue for 1993, rev_1 is the revenue for 1994, and so on. The 'year0' should be the same for all files and all records in the BPM database.

## *2.1 FACTORS FILE*

The Factors file (FACTORS.DBF) contains the estimating factors used by each Lab/Function to estimate the amounts to charge or 'tax' for specific purposes. Each of the factors represents a charge on Civilian Pay. The file contains one factor per record, and indicates which lab it belongs to. Note that there are three factors in this file which only the System Administrator is supposed to modify. These are the Inflation factors, the G&A factors and the Leave and Benefits factors which apply to the Center as a whole.

```
Structure for database: C:\BPM\FACTORS.DBF
Field  Field Name  Type       Width    Dec
    1  FACTOR      Character      3       <- controlled
    2  LAB         Character      4       <- controlled
    3  FOE         Character      6       <- controlled
    4  YEAR0       Numeric        4
    5  FACT_0      Numeric        6      4
    6  FACT_1      Numeric        6      4
    7  FACT_2      Numeric        6      4
    8  FACT_3      Numeric        6      4
    9  FACT_4      Numeric        6      4
   10  FACT_5      Numeric        6      4
   11  FACT_6      Numeric        6      4
   12  FACT_7      Numeric        6      4
** Total **                      66

Indexes:
ntl:  factor+lab+foe
```

## 2.2 REVENUE FILE

The Revenue file (REVENUE.DBF) contains the estimates of the anticipated revenues (by source), and associated estimates of the requirements for major contracts, support contracts, internal transfers, and specific capital investments required to support that revenue. The program computes the amount available and the amount of G&A from this data and using estimating factors. The data contained here on major contracts, support contracts, and capital investments are totalled from corresponding records in the Externals file. The data contained here on internal tranfers are totalled from corresponding records in the Internals file.

```
Structure for database: C:\BPM\REVENUE.DBF
Field  Field Name  Type        Width    Dec
    1  LAB         Character       4       <- controlled
    2  FOE         Character       6       <- controlled
    3  OFFICE      Character       4       <- controlled
    4  GROUP       Character       6       <- controlled
    5  SOURCE      Character      10       <- controlled
    6  REVID       Numeric         5       <- internal key
    7  APPN        Character       5       <- controlled
    8  CATEGORY    Character       4       <- controlled
    9  MDEP        Character       4
   10  PROG_ELEM   Character       6
   11  PROJ_NO     Character       4
   12  TASK        Character       4
   13  PMS         Character       4
   14  YEAR0       Numeric         4
   15  REV_0       Numeric         6       <- revenue ($K)
   16  REV_1       Numeric         6
   17  REV_2       Numeric         6
   18  REV_3       Numeric         6
   19  REV_4       Numeric         6
   20  REV_5       Numeric         6
   21  REV_6       Numeric         6
   22  REV_7       Numeric         6
   23  CONT_0      Numeric         6       <- major cont ($K)
   24  CONT_1      Numeric         6
   25  CONT_2      Numeric         6
   26  CONT_3      Numeric         6
   27  CONT_4      Numeric         6
   28  CONT_5      Numeric         6
   29  CONT_6      Numeric         6
   30  CONT_7      Numeric         6
   31  SUPT_0      Numeric         6       <- supt cont ($K)
   32  SUPT_1      Numeric         6
   33  SUPT_2      Numeric         6
   34  SUPT_3      Numeric         6
   35  SUPT_4      Numeric         6
   36  SUPT_5      Numeric         6
   37  SUPT_6      Numeric         6
   38  SUPT_7      Numeric         6
   39  CAP_0       Numeric         6       <- cap invest ($K)
   40  CAP_1       Numeric         6
   41  CAP_2       Numeric         6
   42  CAP_3       Numeric        6
   43  CAP_4       Numeric        6
   44  CAP_5       Numeric        6
   45  CAP_6       Numeric        6
   46  CAP_7       Numeric        6
   47  INTL_0      Numeric        6       <- intl transfers ($K)
   48  INTL_1      Numeric        6
   49  INTL_2      Numeric        6
   50  INTL_3      Numeric        6
   51  INTL_4      Numeric        6
   52  INTL_5      Numeric        6
   53  INTL_6      Numeric        6
   54  INTL_7      Numeric        6
   55  WKYR_0      Numeric        7    2 <- direct wkyrs
   56  WKYR_1      Numeric        7    2
   57  WKYR_2      Numeric        7    2
   58  WKYR_3      Numeric        7    2
   59  WKYR_4      Numeric        7    2
   60  WKYR_5      Numeric        7    2
   61  WKYR_6      Numeric        7    2
   62  WKYR_7      Numeric        7    2
   63  CARRYOVER   Numeric        6       <- carry in ($K)
   64  CARRY_0     Numeric        6       <- carry out ($K)
   65  CARRY_1     Numeric        6
   66  CARRY_2     Numeric        6
   67  CARRY_3     Numeric        6
   68  CARRY_4     Numeric        6
   69  CARRY_5     Numeric        6
   70  CARRY_6     Numeric        6
   71  CARRY_7     Numeric        6
   72  BASIS       Character     60
** Total **                     481

Indexes:
ntl:  lab+foe+str(revid)
nt2:  revid
```

## 2.3 EXTERNALS FILE

The Externals file (EXTERNALS.DBF) contains the specific externals associated with revenue records. They are linked back to the revenue record by the lab+foe+revid. All three kinds of external actions (major contracts, support contracts, and capital investments) are accommodated by this structure and distinguished by the EXTTYPE field.

```
Structure for database: C:\BPM\EXTERNALS.DBF
Field  Field Name  Type       Width    Dec
    1  LAB         Character      4       <- controlled
    2  FOE         Character      6       <- controlled
    3  REVID       Numeric        5       <- internal key
    4  EXTTYPE     Character      3       <- controlled
    5  PRIORITY    Numeric        4
    6  GROUP       Character      6       <- controlled
    7  EXPTO       Character     10       <- controlled
    8  ASS_TYPE    Character     10       <- controlled
    9  ASSET       Character     30
   10  YEAR0       Numeric        4
   11  CONT_0      Numeric        6          <- external amt ($K)
   12  CONT_1      Numeric        6
   13  CONT_2      Numeric        6
   14  CONT_3      Numeric        6
   15  CONT_4      Numeric        6
   16  CONT_5      Numeric        6
   17  CONT_6      Numeric        6
   18  CONT_7      Numeric        6
   19  BASIS       Character     60
** Total **                     191

Indexes:
nt1:  lab+foe+str(revid)+exttype+str(priority)
```

## 2.4 *INTERNALS FILE*

The Internal Transfers file (INTERNALS.DBF) contains the specific internal transfers associated with revenue records. They are linked back to the revenue record by the lab+foe+revid. Note that this file contains only those transfers out of an organization. The anticipated incoming internal transfers are reported as revenues by the receiving organization.

```
Structure for database: C:\BPM\INTERNALS.DBF

Field  Field Name  Type        Width    Dec
    1  LAB         Character      4        <- controlled
    2  FOE         Character      6        <- controlled
    3  REVID       Numeric        5        <- internal key
    4  TOLAB       Character      4        <- controlled
    5  TOFOE       Character      6        <- controlled
    6  OFFICE      Character      4        <- controlled
    7  YEAR0       Numeric        4
    8  INTL_0      Numeric        6        <- intl transfers ($K)
    9  INTL_1      Numeric        6
   10  INTL_2      Numeric        6
   11  INTL_3      Numeric        6
   12  INTL_4      Numeric        6
   13  INTL_5      Numeric        6
   14  INTL_6      Numeric        6
   15  INTL_7      Numeric        6
   16  BASIS       Character     60
** Total **                     142

Indexes:
nt1:  lab+foe+str(revid)
nt2:  tolab+tofoe
```

## 2.5 PRODUCTS FILE

The Products file (PRODUCTS.DBF) contains the specific work products and projects associated with revenue records. They are linked back to the revenue record by the lab+foe+revid.

```
Structure for database: C:\BPM\PRODUCTS.DBF
Field  Field Name  Type        Width    Dec
    1  LAB         Character       4       <- controlled
    2  FOE         Character       6       <- controlled
    3  REVID       Numeric         5       <- internal key
    4  PRODUCT     Character      20
    5  PROJECT     Character      40
    6  DUEDATE     Date            8
** Total **                       84

Indexes:
ntl:  lab+foe+str(revid)
```

## 2.6 PERSONNEL FILE

The Personnel file (PERSONEL.DBF) contains the descriptive data for groups of one or more employees who share a common organization, series, and pay source. These records are linked to the specific workyears in the Workyears file by lab+foe+persid.

```
Structure for database: C:\BPM\PERSONEL.DBF
Field  Field Name  Type        Width    Dec
    1  LAB         Character       4       <- controlled
    2  FOE         Character       6       <- controlled
    3  OFFICE      Character       4       <- controlled
    4  PERSID      Numeric         5       <- internal key
    5  PERS_TYPE   Character       4       <- controlled
    6  PAY_SOURCE  Character       1       <- controlled
    7  SERIES      Character       5       <- controlled
    8  SKILL       Character       1
    9  TITLE       Character      20
   10  POSITION    Character       1       <- controlled
   11  AVGBASE     Numeric         6
   12  AVGWKYR     Numeric         6
   13  BASIS       Character      60
** Total **                      124

Indexes:
ntl:  lab_foe+str(persid)
nt2:  persid
```

## 2.7 WORKYEARS FILE

The Workyears file (WKYRS.DBF) contains the estimates of workyears by type (full time, overtime, part time, or temporary) for the associated personnel record. They are linked to the correct personnel record by lab+foe+persid.

```
Structure for database: C:\BPM\WKYRS.DBF
Field  Field Name  Type         Width    Dec
    1  LAB         Character        4       <- controlled
    2  FOE         Character        6       <- controlled
    3  PERSID      Numeric          5       <- internal key
    4  WKYTYPE     Character        2       <- controlled
    5  YEAR0       Numeric          4
    6  WKYR_0      Numeric          7      2 <- workyears
    7  WKYR_1      Numeric          7      2
    8  WKYR_2      Numeric          7      2
    9  WKYR_3      Numeric          7      2
   10  WKYR_4      Numeric          7      2
   11  WKYR_5      Numeric          7      2
   12  WKYR_6      Numeric          7      2
   13  WKYR_7      Numeric          7      2
** Total **                        78

Indexes:
ntl:  lab+foe+str(persid)+wkytype
```

## 2.8 CAPITAL INVESTMENT FILE

The Capital Investment file (CAPITAL.DBF) contains only those general capital investments which are not directly charged to specific revenues.

```
Structure for database: C:\BPM\CAPITAL.DBF
Field  Field Name  Type         Width    Dec
    1  LAB         Character        4       <- controlled
    2  FOE         Character        6       <- controlled
    3  OFFICE      Character        4       <- controlled
    4  PRIORITY    Numeric          4
    5  ASS_TYPE    Character       10       <- controlled
    6  ASSET       Character       30
    7  CURVAL      Numeric          6
    8  DEPREC      Numeric          2
    9  YEAR0       Numeric          4
   10  REPL_0      Numeric          6       <- replacement ($K)
   11  REPL_1      Numeric          6
   12  REPL_2      Numeric          6
   13  REPL_3      Numeric          6
   14  REPL_4      Numeric          6
   15  REPL_5      Numeric          6
   16  REPL_6      Numeric          6
   17  REPL_7      Numeric          6
   18  NEWI_0      Numeric          6       <- new invest ($K)
```

```
    19  NEWI_1      Numeric       6
    20  NEWI_2      Numeric       6
    21  NEWI_3      Numeric       6
    22  NEWI_4      Numeric       6
    23  NEWI_5      Numeric       6
    24  NEWI_6      Numeric       6
    25  NEWI_7      Numeric       6
    26  BASIS       Character    60
** Total **                     227

Indexes:
ntl:  lab+foe+str(priority)
```

## 2.9 CORE COMPETENCIES FILE

The Core Competencies file (CORECOMP.DBF) contains estimates of the percentages of the workyears and revenues that are directed toward each core competency (numbered 1 through 22). There are four percentages (CIV, MIL, OGA, and CON) reported for each combination of lab+foe+appn in the revenue file.

```
Structure for database: C:\BPM\CORECOMP.DBF
Field  Field Name  Type         Width    Dec
    1  LAB         Character        4       <- controlled
    2  FOE         Character        6       <- controlled
    3  APPN        Character        5       <- controlled
    4  CORECOMP    Character        2       <- ' 1' to '22'
    5  CIV_PCT     Numeric          3
    6  MIL_PCT     Numeric          3
    7  OGA_PCT     Numeric          3
    8  CON_PCT     Numeric          3
** Total **                        30

Indexes:
ntl:  lab+foe+appn+corecomp
```

## 2.10 ORGANIZATION FILE

The Organization file (ORGS.DBF) contains the definitions of the Labs and Functions used in the BPM. Only Labs/Functions included in this file can have data entered for them. This file is maintained by the System Administrator.

```
Structure for database: C:\BPM\ORGS.DBF
Field  Field Name  Type         Width    Dec
    1  LAB         Character        4
    2  LONGLAB     Character       30
    3  FOE         Character        6
    4  LONGFOE     Character       30
    5  TYPEFOE     Character        1       <- controlled
    6  ONTDA       Character        1       <- Y/N
    7  ENTER_REV   Character        1       <- Y/N
```

```
         8  AVGBASE      Numeric          6         <- computed
         9  AVGWKYR      Numeric          6         <- computed
** Total **                              86

Indexes:
nt1:  lab+foe
nt2:  lab (unique)
nt3:  foe (unique)
```

## 2.11 SERIES AND SKILLS FILE

The Series and Skills file (SKILLS.DBF) contains the definitions of the series to which personnel records can be associated. The corresponding skills and job titles are automatically posted to the personnel record along with the selected series. This file is maintained by the System Administrator.

```
Structure for database: C:\BPM\SKILLS.DBF
Field  Field Name  Type        Width    Dec
    1  SERIES      Character       5
    2  SKILL       Character       1         <- controlled
    3  TITLE       Character      20
** Total **                       27

Indexes:
nt1:  series
```

## 2.12 SOURCES FILE

The Sources File (SOURCES.DBF) contains the definitions of the revenue groups and sources (i.e., sources of customer funding) to which revenue records can be associated. This file is maintained by the System Administrator.

```
Structure for database: C:\BPM\SOURCES.DBF
Field  Field Name  Type        Width    Dec
    1  GROUP       Character       6
    2  SOURCE      Character      10
** Total **                       17

Indexes:
nt1:  group+source
```

## 2.13 CURRENT TDA FILE

The Current TDA file (CURR_TDA.DBF) contains the current TDA spaces by Lab and Functions. It is used in the TDA What If, so the FOE of 'ALL' should be used for the labs CED, CSD, and LED. This file is maintained by the System Administrator.

```
Structure for database: C:\BPM\CURR_TDA.DBF
Field  Field Name  Type        Width    Dec
    1  LAB         Character       4
    2  FOE         Character       6
    3  CTDA_DIR    Numeric         4
    4  CTDA_SEC    Numeric         4
    5  CTDA_IND    Numeric         4
    6  CTDA_MGR    Numeric         4
    7  CTDA_TOT    Numeric         4
** Total **                       31

Indexes:
ntl:  lab+foe
```

## *2.14 OFFICES FILE*

The Offices file (OFFICES.DBF) contains the definitions of the Offices included in each Lab. The Office is an optional entry on the revenue, personnel, and capital investment screens. Therefore, this file only needs to be filled for those Labs which want to use the office field. This file is maintained by the System Administrator.

```
Structure for database: C:\BPM\OFFICES.DBF
Field  Field Name  Type        Width    Dec
    1  LAB         Character       4
    2  OFFICE      Character       4
    3  OFF_TITLE   Character      30
** Total **                       39

Indexes:
ntl:  lab+office
```

## *2.15 REVENUE TYPES FILE*

The Revenue Types file (REVTYPES.DBF) contains the definitions of the allowable combinations of revenue identification fields. This control file is not yet implemented in the revenue data entry section, so it is not necessary to fill this file with data. The idea of this file is that the revenues (particularly the direct revenues) could be controlled more precisely to ensure greater data quality. This file is maintained by the System Administrator.

```
Structure for database: C:\BPM\REVTYPES.DBF
Field  Field Name  Type        Width    Dec
    1  APPN        Character       5
    2  CATEGORY    Character       4
    3  MDEP        Character       4
    4  PROG_ELEM   Character       6
    5  PROJ_NO     Character       4
    6  TASK        Character       4
** Total **                       28
```

```
Indexes:
ntl:  appn+category+prog_elem+proj_no+task
```

## *2.16 TOTALS FILE*

The Totals file (TOTALS.DBF) contains computed totals from the Lab and Center baseline analysis recalculation. Funding data in the file is represented in whole dollars. Workyear data is represented in 1/100ths workyears (i.e. 1 whole workyear is represented as 100). The field POOL defines which total is contained on this specific record, and the LAB and FOE fields indicate for which organization these totals apply. The specific LAB and FOE designation of 'ALL' is used to indicate roll-ups of Labs and Functions. All the data contained in this file is computed. The user enters no data directly into this file.

```
Structure for database: C:\BPM\TOTALS.DBF
Field  Field Name  Type        Width    Dec
    1  LAB         Character       4
    2  FOE         Character       6
    3  POOL        Character       3
    4  YEAR0       Numeric         4
    5  PAMT_0      Numeric        10
    6  PAMT_1      Numeric        10
    7  PAMT_2      Numeric        10
    8  PAMT_3      Numeric        10
    9  PAMT_4      Numeric        10
   10  PAMT_5      Numeric        10
   11  PAMT_6      Numeric        10
   12  PAMT_7      Numeric        10
** Total **                       98

Indexes:
ntl:  lab+foe+pool
nt2:  lab+pool
```

## *2.17 PESSIMISM FACTORS FILE*

The Pessimism Factors file (PESSISM.DBF) contains the factors defined by the user in the Revenue Pessimism What If. The first 11 fields are optional and tell the program to which revenue records these .actors apply.

```
Structure for database: C:\BPM\PESSISM.DBF
Field  Field Name  Type        Width    Dec
    1  LAB         Character       4
    2  FOE         Character       6
    3  OFFICE      Character       4
    4  GROUP       Character       6
    5  SOURCE      Character      10
    6  APPN        Character       5
    7  CATEGORY    Character       4
    8  MDEP        Character       4
```

```
       9  PROG_ELEM   Character      6
      10  PROJ_NO     Character      4
      11  TASK        Character      4
      12  YEAR0       Numeric        4
      13  FACT_0      Numeric        6       4 <- pessimism factor
      14  FACT_1      Numeric        6       4
      15  FACT_2      Numeric        6       4
      16  FACT_3      Numeric        6       4
      17  FACT_4      Numeric        6       4
      18  FACT_5      Numeric        6       4
      19  FACT_6      Numeric        6       4
      20  FACT_7      Numeric        6       4
** Total **                        110

Indexes:
ntl:  lab
```

## *2.18 REVENUE PESSIMISM FILE*

The Revenue Pessimism file (REVPESS.DBF) is the computed product of the pessimism factors. This file matches the structure of the Revenue file with the exception of the BASIS field. The user enters no data into this, file.

```
Structure for database: C:\BPM\REVPESS.DBF
Field  Field Name  Type         Width    Dec
    1  LAB         Character        4
    2  FOE         Character        6
    3  OFFICE      Character        4
    4  GROUP       Character        6
    5  SOURCE      Character       10
    6  REVID       Numeric          5
    7  APPN        Character        5
    8  CATEGORY    Character        4
    9  MDEP        Character        4
   10  PROG_ELEM   Character        6
   11  PROJ_NO     Character        4
   12  TASK        Character        4
   13  PMS         Character        4
   14  YEAR0       Numeric          4
   15  REV_0       Numeric          6
   16  REV_1       Numeric          6
   17  REV_2       Numeric          6
   18  REV_3       Numeric          6
   19  REV_4       Numeric          6
   20  REV_5       Numeric          6
   21  REV_6       Numeric          6
   22  REV_7       Numeric          6
   23  CONT_0      Numeric          6
   24  CONT_1      Numeric          6
   25  CONT_2      Numeric          6
   26  CONT_3      Numeric          6
   27  CONT_4      Numeric          6
   28  CONT_5      Numeric          6
   29  CONT_6      Numeric          6
```

```
    30  CONT_7       Numeric      6
    31  SUPT_0       Numeric      6
    32  SUPT_1       Numeric      6
    33  SUPT_2       Numeric      6
    34  SUPT_3       Numeric      6
    35  SUPT_4       Numeric      6
    36  SUPT_5       Numeric      6
    37  SUPT_6       Numeric      6
    38  SUPT_7       Numeric      6
    39  CAP_0        Numeric      6
    40  CAP_1        Numeric      6
    41  CAP_2        Numeric      6
    42  CAP_3        Numeric      6
    43  CAP_4        Numeric      6
    44  CAP_5        Numeric      6
    45  CAP_6        Numeric      6
    46  CAP_7        Numeric      6
    47  INTL_0       Numeric      6
    48  INTL_1       Numeric      6
    49  INTL_2       Numeric      6
    50  INTL_3       Numeric      6
    51  INTL_4       Numeric      6
    52  INTL_5       Numeric      6
    53  INTL_6       Numeric      6
    54  INTL_7       Numeric      6
    55  WKYR_0       Numeric      7      2
    56  WKYR_1       Numeric      7      2
    57  WKYR_2       Numeric      7      2
    58  WKYR_3       Numeric      7      2
    59  WKYR_4       Numeric      7      2
    60  WKYR_5       Numeric      7      2
    61  WKYR_6       Numeric      7      2
    62  WKYR_7       Numeric      7      2
    63  CARRYOVER    Numeric      6
    64  CARRY_0      Numeric      6
    65  CARRY_1      Numeric      6
    66  CARRY_2      Numeric      6
    67  CARRY_3      Numeric      6
    68  CARRY_4      Numeric      6
    69  CARRY_5      Numeric      6
    70  CARRY_6      Numeric      6
    71  CARRY_7      Numeric      6
** Total **                     421

Indexes:  none
```

## *2.19 TDA WIF EVALUATION YEAR FILE*

The Evaluation Year file (TDA_EVAL) contains the evaluation year-level data for the Center TDA and Optimize Personnel What Ifs. One record is automatically created for each of the 8 years in the planning horizon. Most of the values are computed or are extracted from the baseline data during the totals recalculation process.

```
Structure for database: C:\BPM\TDA_EVAL.DBF
Field  Field Name  Type       Width    Dec
    1  FOR_YEAR    Numeric        4
    2  AVG_BILLMY  Numeric        6
    3  AVG_TOTMY   Numeric        6
    4  GA_RATE     Numeric        5      3
    5  GA_REV      Numeric        9
    6  GA_COSTS    Numeric        9
    7  GA_TEC_SAL  Numeric        9
    8  GA_TGT      Numeric        5      3 <- target G&A
    9  TGT_TDA     Numeric        4
   10  WTDA_TOT    Numeric        4
   11  WKY_TOT     Numeric        6      1
   12  WKY_RED     Numeric        6      1
   13  WKY_CONT    Numeric        6      1
   14  WKY_BILL    Numeric        6      1
   15  WKY_GOVT    Numeric        6      1
   16  EXP_GOVT    Numeric        9
   17  EXP_CONT    Numeric        9
   18  EXP_EXT     Numeric        9
   19  EXP_REDEXT  Numeric        9
   20  EXP_ADJEXT  Numeric        9
   21  EXP_GOVT_N  Numeric        9
   22  TOT_DIR     Numeric        9
   23  TOT_CUST    Numeric        9
   24  TOT_REV     Numeric        9
   25  TOT_OMAD    Numeric        9
   26  TOT_EXP     Numeric        9
   27  TOT_GA      Numeric        9
   28  TOT_NET     Numeric       10
   29  TS_COSTS    Numeric        9
   30  LINE_COSTS  Numeric        9
   31  RAT_SDR_L   Numeric        5      3 <- target ratios
   32  RAT_IDR_L   Numeric        5      3
   33  RAT_MDR_L   Numeric        5      3
   34  RAT_SDR_S   Numeric        5      3
   35  RAT_MDR_S   Numeric        5      3
   36  DPCT_SEC    Numeric        4      2 <- direct percents
   37  DPCT_MGR    Numeric        4      2
   38  DPCT_IND    Numeric        4      2
   39  DPCT_PAE    Numeric        4      2
   40  CFACT_DIR   Numeric        5      3 <- confidence factors
   41  CFACT_CUS   Numeric        5      3
   42  XCHNG       Numeric        5      3 <- govt/contr exchange
** Total **                     284

Indexes:
ntl:  for_year
```

## 2.20 TDA WIF ORGANIZATION FILE

The TDA What If Organization file (TDA_WIF.DBF) contains the organization-level data for the Center TDA and Optimize Personnel What Ifs. One record is automatically created for each organization in each of the 8 years in the planning horizon. Most of the values are computed or are extracted from the baseline data during the totals recalculation process.

```
Structure for database: C:\BPM\TDA_WIF.DBF
Field  Field Name  Type       Width    Dec
    1  FOR_YEAR    Numeric        4
    2  LAB         Character      4
    3  FOE         Character      6
    4  TYPEFOE     Character      1
    5  WTDA_DIR    Numeric        4       <- what if TDA
    6  WTDA_SEC    Numeric        4
    7  WTDA_IND    Numeric        4
    8  WTDA_MGR    Numeric        4
    9  WTDA_TOT    Numeric        4
   10  WTDA_OK     Character      1
   11  TOT_DIR     Numeric        9
   12  TOT_CUST    Numeric        9
   13  TOT_REV     Numeric        9
   14  TOT_OMAD    Numeric        9
   15  TOT_EXP     Numeric        9
   16  TOT_GA      Numeric        9
   17  TOT_NET     Numeric       10
   18  SAL_DIR     Numeric        6
   19  SAL_SEC     Numeric        6
   20  SAL_IND     Numeric        6
   21  SAL_MGR     Numeric        6
   22  SAL_CONT    Numeric        6
   23  SFACT_NTS   Numeric        6      4
   24  SFACT_WTS   Numeric        6      4
   25  WKY_TOT     Numeric        6      1
   26  WKY_RED     Numeric        6      1 <- cont wkyr reduction
   27  WKY_CONT    Numeric        6      1
   28  WKY_BILL    Numeric        6      1
   29  WKY_GOVT    Numeric        6      1
   30  WKY_PCT     Numeric        3
   31  EXP_GOVT    Numeric        9
   32  EXP_CONT    Numeric        9
   33  EXP_EXT     Numeric        9
   34  EXP_REDEXT  Numeric        9       <- ext expense reduction
   35  EXP_ADJEXT  Numeric        9
   36  EXP_GOVT_N  Numeric        9
   37  UDATE       Date           8
   38  CTDA_DIR    Numeric        4       <- current TDA
   39  CTDA_SEC    Numeric        4
   40  CTDA_IND    Numeric        4
   41  CTDA_MGR    Numeric        4
   42  CTDA_TOT    Numeric        4
   43  RBFT_TB     Numeric        6       <- revenue by fund type
   44  RBFT_63B    Numeric        6
   45  RBFT_64     Numeric        6
   46  RBFT_65     Numeric        6
   47  RBFT_67     Numeric        6
   48  RBFT_OMA    Numeric        6
   49  RBFT_PROC   Numeric        6
   50  RBFT_DBOF   Numeric        6
   51  RBFT_OTH    Numeric        6
** Total **                     312

Indexes
```

```
ntl:  str(for_year)+wiforg(lab,foe)+foe+lab
nt2:  str(for_year)+lab+foe
```

### 2.21 BPM HELP FILE

The BPM Help file (BPM_HELP.DBF) contains the text of the help system, broken into 200 character segments per record.

```
Structure for database: C:\BPM\BPM_HELP.DBF
Field  Field Name  Type        Width    Dec
    1  HELP_FOR    Character     20
    2  HELP_TEXT   Character    200
    3  HELP_LINE   Numeric        2
** Total **                     223

Indexes:
ntl:  help_for+str(help_line,2)
```

# CHAPTER 3

# BPM FUNCTIONS AND PROCEDURES

## *3.1 FUNCTION AND PROCEDURE MAPPING BY PROGRAM CODE FILE*

This paragraph presents a listing of the contents of each of the program code files. Each function and procedure in the file is listed in the order it is found in the file. A brief description of the purpose of the routine is also included. The alphabetical listing of routines in paragraph 3.2 may also be useful in locating a specific procedure or function.

Line Routine Description

**File BPM AMCC.PRG**

19 amccharts:
This function executes the submenu for AMC Charts.

48 amcc1:
This function produces the tables for the Revenue by Source chart.

74 amcc1a:
This function produces the tables for the OMA Revenue by Source chart.

101 amcc1b:
This function produces the table for the RDTE Revenue by Source chart.

128 amcc1c:
This function produces the table for the PROC Revenue by Source chart.

155 amcc1d:
This function produces the table for the OTHER Revenue by Source chart.

183 amcc1e:
This function produces the table for the DBOF Revenue by Source chart.

210 split_chart:
This function actually prints the Revenue by Source and the Capital Investment by Source tables. The calling routine is responsible for constructing the file 'temp' with the appropriate data in it. This function prints the table. Since the table might be long (i.e. a lot of sources), the report subdivides the output into two tables and accumulates the 'other' entry on the report.

302 amcc2:
This function prints the Revenue by Appropriation chart.

344 amcc5:
This function prints the Revenue by Group chart.

388 amcc3:
This function prints the Workyears by Type chart.

486 amcc4:
This function prints the Cap Invest by Source chart.

Line Routine Description

614 amcc_ihoh:

This function prints the In-House/Out-House Expense summary chart. It works directly from the Totals file (unlike all the other AMC charts!) so it must be currently recalculated. It takes all non-TDA, non-OTM org expenses and places them into the totals for the major externals. It puts the chargeable capital investments into the externals.

664 core_tot:

This function pepares a report of revenue being spent by each core capability for a single year. It allocates the revenue by the percentages stated for each core capability. It also produces the text file 'allerror.txt' which tells which of the core capabilities (of those which do not add up to 100%) results in revenue or workyears being improperly allocated in this report.

1156 add_field:

This function adds a field to a structure extended file, and is used when defining a temporary data file structure.

1173 alloc_det:

This function allocates some fraction of the whole costs for a G&A or TS function to a direct function.

1216 ctreport:

This function prints one page of the core capabilities totals report for a specific combination of appropriation and direct/customer.

**File BPM_ANAL.PRG**

19 baseline:

This function executes the submenu for the Baseline Analyses.

42 view_totals:

This function is the entry point for the Lab/Function analysis, where the user selects the specific Lab/Function to analyze.

66 disp_foe:

This function opens the window and prepares the menu for the Lab/Function baseline analysis.

117 disp_foe_guts:

This function displays the contents of the baseline analysis window, for all five types of analysis windows which are displayed.

256 dotoggle:

This function toggles the Lab/Function baseline analysis between the Function and the Lab (and the reverse). The Lab analysis is indicated by using the FOE of 'ALL'.

277 get_cost_tot:

This function exists to total the costs for a specific lab and foe. The total cost will be the sum of the CPB related costs, the major externals, the chargeable capital investments, the support contractors, and G&A tax (if any). This is used by the Center analysis screen and by various reports to correctly charge the cost of non-TDA organizations as external costs to the Center.

312 anal_details:

This function executes the submenu for the Analyses Details.

Line Routine Description

335 disp_expense:

This function displays the elements of the loaded CPB totals which are displayed as a single line on the baseline analysis screen. This matches the reporting function 'l_exp' which should be modified when this function is changed.

430 disp_external:

This function displays the elements of the externals costs which are displayed as a single line on the baseline analysis screen. This matches the reporting function 'l_ext' which should be modified when this function is changed.

495 disp_contract:

This function displays the elements of the support contract totals which are displayed as a single line on the baseline analysis screen. This matches the reporting function 'l_cont' which should be modified when this is changed.

547 disp_capital:

This function displays the elements of the capital investment totals which are displayed as a single line on the baseline analysis screen. This matches the reporting function 'l_cap' which should be modified when this is changed.

601 disp_internal:

This function displays the totals of the internal transfers which are displayed as revenues and expenses on the baseline analysis screen. Internal transfers could be a problem area because an organization may anticipate revenues which another may not be projecting to give up. This matches the reporting function 'l_int' which should be modified when this is changed.

665 disp_wkyrs:

This function displays the elements of the government workyear totals which are displayed as a single line on the baseline analysis screen. This matches the reporting function 'l_wkyrs' which should be modified when this is changed.

750 view_center:

This function opens the window and prepares the menu for the Center/G&A/TS baseline analysis.

802 ctr_toggle:

This routine displays the pull-down menu of toggle options for the Center analysis screen, and lets the user change the type of analysis being performed.

882 recalc_all:

This function is just the user interface for recalculating all Labs at once and then for producing the Center-wide totals. The user can opt to skip either of the recalc phases if he wants to, and then the contents of the screen are redrawn.

944 recomp_center:

This function prepares the Center totals from the Lab totals.

1104 rem_ts_cost:

This function removes the Tech Support cost from the loaded CPB totals for a single Lab/Function. This is important in the Center totals where you do not want to count the contribution toward Tech Support costs in the loaded CPB because you are going to count the actual Tech Support costs incurred by the Tech Support organizations in the totals.

1139 recalc_lab:

This function is the user interface for the Lab recomputation. It asks the user if he wants to perform the recomputation.

| Line | Routine | Description |
|---|---|---|
| 1166 | recomp_lab: | This function recomputes the Lab totals in two steps. The first is to process each Function in the Lab one at a time, and the second is to prepare the Lab totals from the Function totals. |
| 1270 | recomp_foe: | This function prepares the totals for just one Function. |
| 1532 | put_totals: | This function writes a single totals array into the totals file, and marks it for the correct Lab, Function, and pool. It will not write the array if it is all zeros. It always appends a new record in the file for the totals. |
| 1566 | post_totals: | This function updates a single totals array in the totals file. |
| 1603 | get_totals: | This function retrieves a totals array from the totals file, for a particular Lab, Function, and pool. If the requested totals are not in the file, then the array is set to zero. |
| 1643 | compcpb: | This is the revenue-based calculation of EOR's, G&A, and CPB used in the revenue screen and many analyses and reports. Normally, we don't care about the revenue-based expenses, other than the G&A surcharge. Instead, we use the personnel data (and the corresponding function 'compwky') to compute them. |
| 1726 | compwky: | This function computes the associated costs of personnel workyears, used in the personnel screen and in various reports and analyses. These are the salary and benefits, as well as the EORs computed by factors. This function is much more important than the function 'compcpb' for this purpose since these costs are based on personnel not revenues. |
| 1808 | compass: | This function computes the total capital investment cost from a replacement schedule (which is based on current asset value and depreciation period) and from any new investments. |
| 1865 | view_rates: | This function sets up the opens the window and sets up the menu for the G&A Rate Computation baseline analysis. It is designed to display the rates that would be required to exactly fund the G&A Pool. There is a complicated relationship between the rate and the fund pool that it creates, because the rate affects the amount that is available to spend on payroll. It is assumed that the G&A costs are fixed at their current levels. It is also assumed that only the technical mission FOEs will bear the entire cost of the unfunded G&A. |
| 1927 | disp_rates: | This function computes and displays the required G&A rates, as well as displaying the other contents of the window. |
| 1993 | list_rates: | This function executes the submenu for the G&A rates list. |
| 2014 | accept_rates: | This function takes the computed G&A rates and makes them the official G&A rate for the Center. This overwrites the previous G&A rate data so it is potentially dangerous. |

Line Routine Description

**File BPM_ASST.PRG**

18 assorted:

This function executes the submenu for the Utilities.

44 doreindex:

This function reindexes the data files. It is possible that the indexes could become corrupted and need to be refreshed (for example, if there is a power outage while in the BPM). Normally, this would not happen, and the program does rebuild the indexes in the startup routines if they are missing or outdated.

78 dopack:

This function packs each of the data files. When records are deleted, they are not physically removed. They still occupy space in the data files. This function will remove the unused space, freeing it up for other purposes.

118 docheck:

This function performs of the database validation check. At the moment, this check only looks at the linkage between the data files and the org file, between the wkyrs file and the personel file, and between selected files and the revenue file. Other linkages which could be checked (such as the data validation codes) are not.

165 checkone:

This function lists out all the records in the passed file which are not correctly linked to the orgs file.

220 doload:

This function loads data from another BPM. This data has been transferred to this PC and is available on a floppy or in some directory on the hard disk. This function gets the path to that new data, determines the type of load and then loads each of the data files.

313 genload:

This function loads data for one file at a time.

338 avgload:

This function loads and averages the factors data.

397 delete_lab:

This function deletes data from the data files for one Lab and/or Function.

439 del_allbut:

This function deletes data from the data files for all but one Lab and/or Function.

482 deleteone:

This function deletes records from a single data file and then packs it to remove the deleted records. Depending upon the value of the parameter, it will delete records which match the Lab and/or Function, or it will delete records which do not match the Lab and/or Function.

518 copydata:

This function creates a copy of the data files (for one Lab and/or Function) on a floppy or a subdirectory of the hard disk. It can be used to transfer data to another BPM or to back up the user's data.

566 copyone:

This function copies data for one file name. It creates the file in the destination path and fills it with the data which matches the specified Lab and/or Function.

Line Routine Description

588 toggle_list:
This function toggles the list engine switch 'prswitch'. The switch is used to control whether or not records which do not affect the totals are printed or not.

**File BPM_EDIT.PRG**

19 data_entry:
This function executes the submenu for user Data Entry edits.

51 view_foe_factors:
This function allows the user to view the factors for a Function. It displays the menu which allows the factors to be edited or printed.

132 addupfactors:
This function adds up the factors and displays the bottom line totals on the factors screen.

158 edit_foe_factors:
This function defines the pulldown menu for editing the foe factors.

205 view_main_factors:
This function allows the user to view the Center-wide factors.

252 edit_main_factors:
This function defines the pulldown menu for editing the Center-wide factors.

280 e_factor:
This function edits a single line of factors. But first, it allows the user to optionally select to estimate the factors.

325 est_factor:
This function asks the user to enter the numerator and denominator of the estimate for the factor. It then puts the ratio into each element of the temporary factors array.

353 load_main_factors:
This function loads the Center factors into the global arrays.

382 load_foe_factors:
This routine loads the factors data for a single Lab/Function into the global arrays for the Function's factors.

428 get_factor:
This function reads a factor array from the factors file.

450 put_factor:
This function stores a factors array into its correct position in the factors file. It only stores non-zero factors. It will open and close the factors file if needed.

486 list_factors:
This function executes the submenu for the factors list.

514 view_revenue:
This function opens the revenue edit window and sets up the horizontal menu.

584 edit_revenue:
This function displays the pull down menu for editing the revenue data.

656 e_revenue:
This function displays and edits the contents of the revenue window. You can only edit the revenue ID data (top half) here. The other items are edited through the edit_revenue pull down menu.

| Line | Routine | Description |
|---|---|---|
| 801 | e_carry: | This function edits the carryover amounts on a revenue record. It is needed because there are two places where carryover is edited. |
| 824 | del_revenue: | This function is needed (rather than just calling del_rec) because it is possible that this revenue record will have associated external, internal, or products records. If they exist, they must be deleted too. |
| 882 | move_revenue: | This function moves a revenue record (and associated external, internal, and product records) to another Lab/Function. |
| 934 | e_rev_item: | This function edits a single line of the revenue screen. |
| 969 | list_revenue: | This function executes the submenu for the revenue list. |
| 1008 | view_major: | This function opens the window for major externals records from the externals file, and sets up the horizontal menu. |
| 1070 | e_major: | This function displays and edits the contents of the major externals window. |
| 1144 | view_support: | This function opens the window for support contract records from the externals file, and sets up the horizontal menu. |
| 1206 | e_support: | This function displays and edits the contents of the  support contracts window. |
| 1279 | view_capmaj: | This function opens the window for major capital expense records from the externals file, and sets up the horizontal menu. |
| 1342 | e_capmaj: | This function displays and edits the contents of the major capital investments window. |
| 1415 | view_internal: | This function opens the window to display internal transfer records from the internal file, and sets up the horizontal menu. |
| 1477 | e_internal: | This function displays and edits the contents of the internal transfers window. |
| 1550 | view_products: | This function opens the window for product/project records from the product file, and sets up the horizontal menu. |
| 1602 | e_product: | This function displays and edits the contents of the products window. |
| 1659 | view_personnel: | This function opens the personnel data entry window and sets up the horizontal menu. |
| 1723 | edit_personnel: | This function displays the pull down menu for editing the personnel data. |

| Line | Routine | Description |
|---|---|---|
| 1778 | e_personnel: | This function displays and edits the contents of the personnel window. You can only edit the revenue ID data (top half) here. The other items are edited through the edit_personnel pull down menu. |
| 1883 | blank_if_cont: | This function makes current field blank if the personnel type is 'CONT'. |
| 1905 | set_salary: | This function computes the budget year salary if and only if the execution year salary was zero and has just been edited. |
| 1922 | e_per_item: | This function edits a single line of the personnel screen. |
| 1972 | get_wkyrs: | This function retrieves a specific record from the wkyrs file. If the record does not exist, then the function returns zero workyears. |
| 1999 | del_personnel: | This function is needed (rather than just calling del_rec) because it is possible that this personnel record will have associated workyear records. They must also be deleted. |
| 2031 | move_personnel: | This function moves a personnel record (and associated wkyrs records) to another Lab/Function. |
| 2070 | list_personnel: | This function executes the submenu for the personnel list. |
| 2099 | view_corecap: | This function opens the window to view/enter the core capability percentages for a Lab and Function. It scans the revenue file to determine what the allowable appropriation types are. It also sets up the horizontal menu for this screen. |
| 2210 | go_corecap: | This function lets the user select a specific appropriation from the allowable ones for this Lab and Function. |
| 2229 | e_corecap: | This function displays and edits the contents of the core capability window. |
| 2316 | cctot: | This function computes and displays the total percentages (which should be 100%) of the core competencies. |
| 2341 | get_cap: | This function retrieves the percentage which has been entered for a single Lab, Function, Appropriation, and Core Competency. If none exists, it returns zero. |
| 2365 | put_cap: | This function stores the percentage which has been entered for this Lab, Function, Appropriation, and Core Competency. It creates a record if one is needed. |
| 2400 | view_capital: | This function opens the non-major capital investment window and sets up the horizontal menu. |
| 2459 | e_capital: | This function displays and edits the contents of the non-major capital investments window. |

Line Routine Description

2544 post_repl:

This function posts the computed replacement amounts into the actual replacement amounts in the non-major capital investments window.

2569 list_capital:

This function executes the submenu for the non-major capital investments list.

**File BPM_GENL.PRG**

40 oksrc:

This is a valid function which ensures that only allowable responses for the customer source are entered. If a bad type is entered, then this creates a pop-up window of the acceptable values. It adds "OTHER" to the source list if the group is not direct. If the source selected is "OTHER" then the user is prompted to enter it directly into the field. Note that this valid is different from the others in that it will accept the field if something is typed in there.

119 okgrp:

This is a valid function which ensures that only allowable responses for the customer group are entered. If a bad group is entered, then this creates a pop-up window of the acceptable values.

172 okapn:

This is a valid function which ensures that only allowable responses for the appropriation codes are entered. If a bad code is entered, then this creates a pop-up window of the acceptable values.

205 okcat:

This is a valid function which ensures that only allowable responses for the category are entered. If a bad category is entered, then this creates a pop-up window of the acceptable values. Note that RDTE gets only the RDTE categories, OMA gets only the OMA categories, and other appropriations must have a blank category.

260 okps:

This is a valid function which ensures that only allowable responses for the TDA category are entered. If a bad category is entered, then this creates a pop-up window of the acceptable values.

288 okext:

This is a valid function which ensures that only allowable responses for the external type are entered. If a bad type is entered, then this creates a pop-up window of the acceptable values.

315 okpers:

This is a valid function which ensures that only allowable responses for the personnel type are entered. If a bad type is entered, then this creates a pop-up window of the acceptable values.

342 okpos:

This is a valid function which ensures that only allowable responses for the position code are entered. If a bad code is entered, then this creates a pop-up window of the acceptable values.

Line Routine Description

370 okyn:

This is a valid function which ensures that only allowable responses for the 'yes'/'no' questions are entered. If any other answer is given, then this creates a pop-up window of the acceptable values.

396 okdc:

This is a valid function which ensures that only allowable responses for the 'direct'/'customer' question are entered. If any other response is given, then this creates a pop-up window of the acceptable values.

422 okass:

This is a valid function which ensures that only allowable responses for the asset type are entered. If a bad type is entered, then this creates a pop-up window of the acceptable values.

454 okontda:

This is a valid function which tests the condition of the on_tda flag to make sure that if the Function is not on the TDA, then its Lab begins with an asterisk (*). The asterisk is used extensively in analysis and reports to identify those non-TDA organizations, so it is critical.

477 okorg:

This is a valid function which ensures that only allowable responses for the organization type are entered. If a bad type is entered, then this creates a pop-up window of the acceptable values.

505 okskl:

This is a valid function which ensures that only allowable responses for the skill type are entered. If a bad type is entered, then this creates a pop-up window of the acceptable values.

535 okfact:

This is a valid function which ensures that only allowable responses for the factor type are entered. If a bad type is entered, then this creates a pop-up window of the acceptable values.

571 okwky:

This is a valid function which ensures that only allowable responses for the type of workyears are entered. If a bad type is entered, then this creates a pop-up window of the acceptable values.

599 oklab:

This is a valid function which ensures that only allowable responses for the Laboratory codes are entered. If a bad code is entered, then this creates a pop-up window of the acceptable values.

623 okintlab:

This is a valid function which ensures that only allowable responses for the Laboratory codes are entered. If a bad code is entered, then this creates a pop-up window of the acceptable values. This limits the Labs to internal ones, and so is different from the similar function 'oklab'.

657 okfoe:

This is a valid function which ensures that only allowable responses for the Function (foe) codes are entered. If a bad code is entered, then this creates a pop-up window of the acceptable values.

Line Routine Description

688 dircust:

This function determines whether the funds represented by a revenue record are Direct or Customer. It returns the appropriate words for use in an index or printed field.

710 wr_years:

This function writes the sequence of years on the current window, beginning with the base year.

724 years:

This function composes a string of the years, beginning with the base year. Each occupies a seven character space. It is used extensively in the reports and screen painters. Seven characters per year are the most that can be accommodated within the window, given that there are 8 years.

741 wr_uls:

This function prints a five character underline, with two leading spaces, 8 times. These are used to underline the years, and to separate rows of data.

756 wr_duls:

This function prints a five character underline, with two leading spaces, 8 times. This is a double underline using the equals (=) sign, used to indicate totals.

771 wr_arr:

This function writes an array, and its associated message, to the screen in a standard fashion.

790 larray:

This function creates a string of an array which is used for printing or displaying to the screen in a standard fashion.

821 aadd:

This function adds two arrays together, element by element, and stores the result in the first array.

843 asub:

This function subtracts two arrays from each other, element by element, and stores the result in the first array.

865 amult:

This function multiplies each element of an array by the specified number, and stores the result in the array.

887 minmax:

This function ensures that each element of an array is between the low and high values, inclusive. This guarantees that the array will only have acceptable values (which is important if it is going to be written to a file).

907 get_array:

This function transfers data from the current record into an array. It uses the base (common) part of the field name to recognize which data to load.

1031 put_array:

This function transfers data from an array into the current record. It uses the base (common) part of the field name to recognize which data fields to store into.

1100 aaddf:

This function retrieves an array from the current record and adds its contents to another array. It is used when the contents of the current record aren't needed for any other purpose, such as when you need only to sum a group of records.

Line Routine Description

1122 avmult:

This function multiplies two arrays together, element by element, and stores the result in another array.

1144 avdiv:

This function divides one array by another, element by element, and stores the result in another array.

**File BPM_OPEN.PRG**

24 dolicense:

This procedure displays the general program information window - Who it was written for and who wrote it. It has been activated by the F2 key, so it is required to be a procedure and it must remember where the cursor was when it was called. It waits for any key to close the window.

54 showdemomsg:

This function displays the message below if the program has been started as the demo version. In the main program, if there is the file 'bpm.dem' in the current directory, then this function is called.

74 upgrade:

This function steps through the data files and forces them to have the required structure. This is important whenever program changes have changed the file structures. It is activated only when the user types 'bpm upgrade' at the DOS command line. The only problem with this is that sometimes the changes cannot transfer data (like when a field name changes). For these problems, use the function tempupgrade to insert specific, temporary file manipulations.

120 upgrone:

This function upgrades a single file. It takes the original file and renames it to '*.bak' and throws away all old indexes. Then it causes the correct file structure to be created and appends all records from the old data file. Only data with the same field name is brought into the new file. New fields are left empty (blank or zero).

153 tempupgrade:

This function is used to make the specific database changes that must be accommodated for a specific release of the BPM. For example, an empty field may need to be filled or computed from other database values.

172 defineallfiles:

This function defines the files which are specifically used in the BPM. Each file is given an ID number, a name, and one or more indexes (a leading asterisk means a unique index).

207 buildfile:

This function defines the data files and their fields. When called, it will create a data file with the appropriate name and structure.

457 load_orgs:

This function places the organization names (Labs and Functions) into arrays so that the two functions 'sel_foe' and 'sel_lab_foe' can be sped up. Note that the user might enter a specific Lab as a parameter on the DOS command line and so the program will limit the Function choices.

Line Routine Description

554 sel_foe:

This function pops up the selection window of the Functions and returns the parameter values for the selected Function.

583 sel_lab_foe:

This function lets the user select the Lab and/or Function to operate with. It always offers all the Labs and Functions to select from. It's used in the Utilities.

**File BPM_REPT.PRG**

21 list_totals:

This function executes the submenu for the analysis list for the Lab/Function baseline analysis.

56 list_center:

This function executes the submenu for the analysis list for the Center/G&A/TS baseline analysis.

99 list_totl:

This function prints the listing of the analysis results for all types of baseline analyses. It is generic enough to handle each of the different baseline analysis products. It closely parallels the 'details' functions in the baseline analyses and you will probably want to make changes here whenever there are changes there.

156 l_main:

This function prints the main screen of the baseline analysis.

270 l_exp:

This function prints the elements of the loaded CPB totals from the baseline analysis.

341 l_ext:

This function prints the externals detail screen of the baseline analysis.

389 l_supt:

This function prints the support contractors screen of the baseline analysis.

423 l_cap:

This function prints the capital investment screen of the baseline analysis.

459 l_int:

This function prints the internal transfers screen of the baseline analysis.

505 l_wkyrs:

This function prints the workyears screen of the baseline analysis.

562 intl_diag:

This function prints the diagnosis report for the internal transfers.

681 org_nets:

This function produces a report of the net balance for each Lab/Function.

764 list_corecap:

This function executes the submenu for the core capabilities list.

791 core_qc:

This function prints the core capability QC report.

Line Routine Description

852 core_dollars:

This function prints a report of revenue being directed to each core capability in a year. It allocates the revenue by the percentages stated for each core capability. The user can specify which Lab/Function(s) to work with and which year. This excludes all internal transfer revenues.

960 corefilt:

This function allows the user to specify which Lab, Function, Appropriation, and Year to use to filter the core capability reports.

1018 list_avg_fact:

This function prints a report of average factors for the Center or for just one Lab. It averages the factors based on the civilian pay base for each Function being averaged.

**File BPM_REP1.PRG**

24 expenses:

This function executes the submenu for the total expenses reports in the Center Analysis list.

45 tot_exp1:

This report totals the expenses by Direct/Customer, APPN, and Category for each of the subsets CPB, MS, TT, TNG, Capital Investments, Tech Support (all combined), G&A, and Laboratory Indirect, as well as major externals (including major capital investments), and support contracts. Only the principal technical mission FOEs are included. The calculation is revenue based.

355 retrieve_costs:

This function is used to quickly get the total costs for a group of foes, either G&A, indirect, or tech support. When a parcel of money contributes to the G&A pool, for example, it must be allocated to the basic cost elements of the G&A pool.

415 allocate_costs:

This function takes the amount to be allocated, and divides it among the various expenses in proportion to the ratio of the expense to the total expense. It also accumulates these expenses into the allocated arrays so that the totals for a category can also be printed. It sets a flag so that the totals block will get printed.

483 tot_exp2:

This report totals the expenses by APPN and Category for each of the subsets CPB, MS, TT, TNG, Capital Investments, Tech Support (all combined), G&A, and Laboratory Indirect, as well as major externals (including major capital investments), and support contracts. Only the principal technical mission FOEs are included. The calculation is revenue based.

794 tech_base_ihoh:

This function produces a report of Tech Base in-house expenses and externals and their ratios. It uses the same method for allocating G&A, Tech Support, and Lab Indirect expenses as the previous two expense totals reports.

Line Routine Description

1024 source_use:
This report totals the expenses by Direct/Customer, APPN, and Category for each of the subsets CPB, Other (MS, TT, TNG), Capital Investments, OGA, Externals, & Support Contracts. It allocates costs for Tech Support, G&A, and Laboratory Indirect proportionally according to the revenues received. The calculation is revenue based. This report prints for a specified year only.

1478 alloccomp:
This function composes one line for printing in the sources and uses report. If needed, it rounds the numbers before printing them.

1506 allocadd:
This function adds two parallel arrays of 12 elements for the sources and uses report.

1532 allocsu:
This function does the allocation of G&A, TS, and IND costs for the sources and uses report. It works with an array which holds computed values in array elements 7, 8, and 9 respectively. They are transferred to array elements 1 thru 6 based on the ratio of G&A, TS, and IND costs to their own totals.

1564 readjust:
This function rebalances a single array to proportionally accommodate differences between revenue-based and personnel-based calculations.

1618 balances:
This function executes the submenu for the balances reports.

1636 balance1:
This function prints a report which balances the non-OMAD, non-DBOF (i.e., mostly RDTE) revenue against all personnel whose pay source is 'R'.

1679 balance2:
This function prints a report which balances the OMAD revenue against all personnel whose pay source is 'O'.

1719 balance3:
This function prints a report which balances the DBOF revenue against all personnel whose pay source is 'D'.

1759 bal_part1:
This function prints the first half of the balance report, which summarizes the personnel costs.

1873 bal_part2:
This function prints the second half of the balance report, in which the uses of revenues are described.

1958 ts_amounts:
This function executes the submenu for the Tech Support Amount reports.

1977 tsamt:
This function prints a report which shows the amounts contributed to a Tech Support Function by all other organizations. This data is taken from the totals file.

Line Routine Description

**File BPM_REP2.PRG**

38 fillnf:

This function fills the standard arrays used by the user- defined listing and totals report writers. It exists to make the definition of these arrays easier for the programmer.

78 list_fac1:

This function constructs the field definitions for the factors file listing report.

96 list_rev1:

This function constructs the field definitions for the revenue file listing report.

130 list_ext1:

This function constructs the field definitions for the externals file listing report. It also prints related data from the revenue file, so it is linked.

176 list_int1:

This function constructs the field definitions for the internal transfers file listing report. It also prints related data from the revenue file, so it is linked.

218 list_prod1:

This function constructs the field definitions for the products file listing report. It also prints related data from the revenue file, so it is linked.

259 list_pers1:

This function constructs the field definitions for the personnel file listing report.

294 list_cap1:

This function constructs the field definitions for the capital investment file listing report.

321 list_core1:

This function constructs the field definitions for the core capabilities file listing report.

344 list_orgs:

This function constructs the field definitions for the organization file listing report.

368 list_skills:

This function constructs the field definitions for the skills/series file listing report.

386 list_off:

This function constructs the field definitions for the offices file listing report.

404 list_sources:

This function constructs the field definitions for the sources file listing report.

421 list_revtypes:

This function constructs the field definitions for the revenue types file listing report.

442 list_ctda:

This function constructs the field definitions for the current TDA file listing report.

464 list_pess_rev:

This function constructs the field definitions for the revenue pessimism file listing report.

497 list_wif1:

This function constructs the field definitions for the What If file listing report.

556 user_defined:

This function is the user interface for the flexible user-defined listing report. It contains the report definition window with the three the three columns for the fields to print, the sort order, and the filter conditions.

884 list_engine:

This function actually prints the user-defined listing report.

Line Routine Description

945 show_arr:

This function displays one column of the user-defined report definition in a specified defined window block and clears any unused spaces.

973 show_line_length:

This function computes and displays the width of the resulting report (in characters) based on the currently selected print fields.

1000 compose_line:

This function composes the print string needed to produce the printed line for an array variable. It also accumulates the totals in an array so that they can be printed at the end of the report.

1040 c_o:

This function composes the print string needed to produce the printed line for a scalar variable. It also accumulates the totals so that they can be printed at the end of the report.

1059 anonzero:

This function determines if an array of fields contains any non-zero elements. It is used to determine if the line of text needs to be printed.

1077 getfiltcond:

This function displays a window so the user can enter the operator and the test condition for a single filter condition.

1114 okoper:

This function executes the valid condition for the operator.

1141 savepsf:

This function saves the report definition arrays into a specified memory variable file. It temporarily transfers the contents of the arrays through macro variables because Clipper cannot store arrays in memory (.mem) files.

1184 loadpsf:

This function loads the contents of the report definition arrays from a specified memory variable file. It temporarily transfers the contents of the arrays through macro variables because Clipper cannot store arrays in memory (.mem) files.

1229 rem_old_names:

This function checks the contents of the report definition (.mem) file to ensure that the fields are all currently defined. Only the first 10 characters are checked.

1255 listcapstr:

This function computes the total capital investment and composes the string to write it out.

1281 net_carry:

This function computes the net carryover.

1306 net_revenue:

This function composes a string of the net revenue (with carryover).

1329 net_rev:

This function computes the net revenue (with carryover).

Line Routine Description

**File BPM_REP3.PRG**

43 tot_rev1:
This function constructs the field definitions for the revenue file totals report.

82 tot_ext1:
This function constructs the field definitions for the externals file totals report. It also prints related data from the revenue file, so it is linked.

129 tot_int1:
This function constructs the field definitions for the internals file totals report. It also prints related data from the revenue file, so it is linked.

174 tot_rev2:
This function constructs the field definitions for the revenue file totals report, tailored to print the direct workyears data.

214 tot_carry:
This function constructs the field definitions for the net carryover totals report.

253 tot_netrev:
This function constructs the field definitions for the net revenue totals report.

292 tot_pers1:
This function constructs the field definitions for the personnel file totals report.

331 tot_cap1:
This function constructs the field definitions for the capital investment file listing report.

360 tot_pess_rev:
This function constructs the field definitions for the revenue pessimism file totals report.

390 user_totals:
This function is the user interface for the flexible user-defined totals report. It contains the report definition window with the two columns for the subtotal fields and the filter conditions.

599 total_engine:
This function actually prints the user-defined totals report.

**File BPM_SYST.PRG**

20 sys_edit:
This function executes the submenu for System Administrator edits and other features for managing the database.

54 view_orgs:
This function is the user interface to view and edit the organization file.

100 e_org:
This function displays and/or edits the contents of the organization window.

164 view_off:
This function is the user interface to view and edit the offices file.

210 e_off:
This function displays and/or edits the contents of the office window.

260 view_skills:
This function is the user interface to view and edit the skills/series file.

Line Routine Description

307 e_skill:

This function displays and/or edits the contents of the skills/series window.

357 view_sources:

This function is the user interface to view and edit the sources file.

403 e_source:

This function displays and/or edits the contents of the sources window.

451 view_revtypes:

This function is the user interface to view and edit the revenue types file.

497 e_revtype:

This function displays and/or edits the contents of the revenue types window.

554 view_ctda:

This function is the user interface to view and edit the current TDA file.

602 e_ctda:

This function displays and/or edits the contents of the current TDA window.

661 tot_ctda:

This valid function computes and displays the total TDA.

681 incr_baseyear:

This function is used to increment the baseyear and translate all the data over one year. It should be done only once a year!

776 edit_baseyear:

This function is used to change the base year, without translating any of the data. This just affects the base year (year0) fields in each file.

815 remove_empty:

This function processes the removal of empty records from the data files.

912 removeone:

This function removes empty records from the designated file, based on the passed criteria.

932 remove_unlinked:

This function processes the deletion of records which are not linked to the organizations file, and if appropriate, not linked to either the revenue or personnel files.

964 unlinked:

This function deletes all the records in the specified file which are not correctly linked to the orgs file.

1001 limit_overtime:

This function is used to change the overtime salary limit.

**File BPM_WHA1.PRG**

31 whatif:

This function executes the submenu for the What If analyses.

122 rev_pessimism:

This function opens the window to display a single pessimism record and sets up the horizontal menu.

173 pessfilt:

This function lets the user specify a Lab and/or Function on which to filter the revenue data.

Line Routine Description

197 e_pessimism:

This function displays and edits the contents of the pessimism window.

312 compchg:

This is the valid function which computes and displays the resulting factors as the user enters the percent changes.

340 dopessimism:

This function manages the application of the pessimism factors, displays the results, and defines the menu for allocations and printouts.

486 pess_scan:

This function applies the pessimism factors to the revenue file to produce the revised revenue and costs. In the process it creates the file 'revpess.dbf' which contains the revised data.

641 pess_adj_exp:

This function adjusts the expenses for contractors, externals, and capital investments in the revenue pessimism file. It only works if there was revenue originally, and now that revenue has been driven to zero by the pessimism factors.

666 pess_adj:

This function adjusts the expense elements of the revenue pessimism file proportionally to the extent that the revenue was changed by the factors.

685 pess_show:

This function displays the contents of the 2nd pessimism window (that displays the results of the pessimism factors). As the data is altered by allocations, it is redisplayed.

726 alloc_cost:

This function executes the submenu for the allocation options. Between each call it must redisplay the screen.

761 alloc_wky:

This function allows the users to edit the revised workyears.

791 calloc_wky:

This is the valid function for the workyear editing which redisplays the cost of the workyears and the total costs as the data is edited.

817 alloc_one:

This function edits one of the cost elements of the allocation. It opens a window which displays the baseline data, the impact of the pessimism factors, and the adjusted revised data that the user edits.

885 calloc_one:

This valid function displays the difference between the revised amount and the adjusted revised amount on the line above the entry.

907 e_cpb_wky:

This function edits the average loaded CPB cost per workyear.

940 e_cpb_ga:

This function edits the What If G&A rate.

979 list_pessimism:

This function executes the submenu for the pessimism reports.

1004 list_pess1:

This function reports the same data as the revenue pessimism screen and each of the allocation screens.

Line Routine Description

1117 opt_personnel:
This function opens the window to display the personnel optimization menu.

1265 pcttoggle:
This function toggles the flag which controls the viewing of the data by percentages or by $K. If the toggled flag is true, then percentages are viewed.

1278 e_opt_pers:
This function displays and edits the data on the main screen for the optimize personnel algorithm. If new data needs to be loaded and recalculations done, then that is also done here.

1351 opt_disp:
This function displays the contents of a single line on the personnel optimization screen.

1383 opt_fact:
This function displays the pull-down menu for the optimization factors edit screens ('Factors').

1407 opt_fact1:
This function displays the workload planning factors for each Lab/Function, indicating the basis for the factor, and also the lower limit number of personnel which can be assigned to that Function.

1470 opt_fact2:
This function displays and allows the user to edit the factors which tell the algorithm how to estimate the number of contract actions.

1526 opt_view:
This function displays the pull-down menu for the detailed views of the Personnel Optimization. The data displayed on these screens has already been stored in arrays during the computations.

1545 opt_view1:
This function displays the allocation of personnel positions to Lab and Function by total, direct, managers, secretary, and indirect. This data is stored in the array 'staffpos' during the recalculations.

1560 opt_view2:
This function displays in-house costs ($K) by Lab and Function. This data is stored in the array 'ihcosts' during the recalculations.

1572 opt_view3:
This function displays the revenues by fund type for each Lab and Function. This data is stored in the array 'revenues' during the recalculations.

1587 opt_calc:
This function does the Personnel Optimization recalculations. It is a circular calculation, and must be cycled through until it converges.

1756 oneorgcalc:
This function is a general-purpose function to calculate staffing levels for a support organization.

1803 dirorgcalc:
This function is a general-purpose function to calculate staffing levels for a direct organization.

Line Routine Description

1843 gasubsidy:

This function figures out where the G&A subsidy is spent. This is non-trivial because the subsidy may large enough to cover the personnel costs or it might not.

1895 reloaddata:

This function rescans the tda_wif file to reload the data arrays used in the Optimize Personnel Algorithm. This is needed each time the year changes.

1979 loadrevs:

This function loads the data for one Lab/Function.

2030 ardiv:

This function creates a distribution of one array and stores it in another. It is used to compute the weighting fractions, as in revenue distributions by fund type.

2052 arsum:

This function adds the first nine elements of an array and stores the sum into the tenth element. It is used to add up the array when the individual elements have been separately entered (as in loading the revenue data).

2071 ardist:

This function takes the total amount of an array (stored in the tenth element) and distributes it to the first nine elements of the array according to the distribution contained in a second array.

2090 arvadd:

This function adds two arrays of ten elements and stores the results in the first array.

2107 arvsub:

This function subracts two arrays of ten elements and stores the results in the first array.

2124 arneg:

This function returns true if any element of an array is negative. It is used to check the data and warn the user if the algorithm produces any strange results because of bad input.

2143 opt_list:

This function displays the pull-down menu for the Personnel Optimization list.

2166 opt_list1:

This function prints the report of staff positions by Lab and Function. It prints the data contained in the array 'staffpos'.

2200 opt_list2:

This function prints the report of in house costs by Lab and Function. It prints the data contained in the array 'ihcosts'.

2229 opt_list3:

This function prints the report of revenues by Lab & Function. It prints the data contained in the array 'revenues'.

2258 opt_save:

This function stores the personnel allocation computed by the Personnel Optimization algorithm into the tda_wif file for this year.

Line Routine Description

**File BPM_WHA2.PRG**

30 tda_whatif:

This function opens the window for the TDA What If evaluation summary data for a single year, and sets up the submenu.

95 e_tda_what:

This function displays and edits the data for a single evaluation year.

170 tda_eval_comp:

This function fills all the computed fields for a single evaluation year. It assumes that the totalled fields have already been filled from the organization-level data.

244 e_tda_tgt:

This function allows the user to enter the target TDA totals for all the years in one window.

276 view_tda_org:

This function opens the organization-level window. It starts by displaying the current organization's data, and then sets up the horizontal menu.

340 tgt_toggle:

This function presents and executes the pull down submenu for 'Use' at the organization-level menu.

385 eval_toggle:

This function presents and executes the pull down submenu for 'Use' at the Center-level menu.

423 showrecmsg:

This function displays the status of the recalc flag and the type of G&A rate being used, on the bottom border of the current window.

443 e_tda_org:

This function displays and edits a single record of the organization-level data. It works closely with the related valid function 'tda_tot' to display the data on the screen.

535 show_overall:

This function causes the current evaluation year to be retotaled and then displays certain measures on the bottom line of the current window.

566 tda_tot:

This function displays the results of the line calculations, which are performed in the function 'tda_tot_comp'.

617 tda_tot_comp:

This function performs the line calculations that fill in all of the computed fields for one organization in the evaluation year.

721 wkyrs_adjust:

This function calculates the adjusted total required workyears due to the government/contractor exchange ratio. The problem is that as contractors are added/subtracted, then the total required workyears will change (if the exchange ratio is other than 1.0).

Line Routine Description

745 recalc_tda:

This function recalculates the totals from the baseline BPM data and stores the results into the 'tda_wif' file by organization. This same function is used by both the Center TDA and the Optimize Personnel What Ifs. As an option, the user can choose to prepare the totals from the revenue pessimism file rather than from the baseline revenue data.

1145 rerecalc_tda:

This function retotals the data for a specific Lab. This is called only for the technical Labs which are represented by single records in the database, rather than at the Function level.

1224 recalc_year:

This function retotals the separate organization records to produce the TDA What If totals for a specific year. It calls the function 'recalc_yr' to actually do it, but this routine provides a nicer user interface.

1253 recalc_yr:

This function retotals the separate organization records to produce the TDA What If totals for a specific year. This needs to be redone when the database is retotaled, when certain factors have been changed, and whenever you want to see the yearly critical measures.

1336 list_tda_wif:

This function executes the submenu for the TDA What If Center-level reports.

1364 list_tda_org:

This function executes the submenu for the organization-level reports.

1390 list_tda1:

This function prints the TDA What If Summary Report. It lists selected critical measures by organization for just the current year.

1424 list_tda2:

This function prints a report of critical measures by year for the Center.

1477 one_measure:

This function prints one line of the Critical Measures by Year (Center-level) report.

1498 list_tda3:

This function prints a report of last edit dates by Lab, Function, and evaluation year.

1545 list_tda4:

This function prints a report of critical measures by year for a specific organization.

1601 org_measure:

This function prints one line of the Critical Measures by Year (organization-level) report.

1622 list_tda5:

This function prints the report 'TDA by Organization by Year', which just shows the total allocated workyears by Lab and Function by evaluation year.

1670 project_tda:

This function projects What If data for all organizations, and for the evaluation year, to all subsequent evaluation years. Then it recalculates all affected years.

1742 doproj_org_tda:

This function asks the user if organization level data should be projected to subsequent years.

Line Routine Description

1764 proj_org_tda:

This function projects the data for a particular Lab and Function from the current evaluation year to all subsequent evaluation years. The data which gets projected includes only that which the user modifies, and the allocation of workyears is also placed in the 'current' fields for subsequent years.

1821 wiforg:

This function produces a one character code for organizations that puts the organizations in proper order by type. It is part of the index for the 'tda_wif' file.

1848 compare_wif:

This function displays critical measures for organizations of a similar type.

1899 te_tot:

This function displays the results of the calculations for a single organization. It is used as a valid function during editing on the table edit screen.

1931 te_tda_org:

This function is the table edit for the TDA Wif by organization. In it, a window pops up with all the organizations listed. The user highlights one line and selects it to edit it.

**File BROWSER.PRG**

20 dobrowse:

This is the user interface that calls the browse function. It manages the window and calls the browse function. It will only browse the current file.

59 fillfld:

This function fills the arrays used by browse. This is used when the programmer wants to customize the browser.

83 browse:

This is the top-level browse function that the program should call (rather than dbedit). It sets up the various variables and arrays that are used by the keystroke handler 'xbrowse'.

170 xbrowse:

This function is a keystroke handler for dbedit. It allows the program to control what data can be edited. It returns ret_val to dbedit telling it what to do. You will need to read the Clipper manual to understand this.

285 get_pic:

This function creates a picture string to use for a field. This is only needed if the programmer has failed to provide an array of pictures to use (and so he wants the default). It handles character strings (truncating them to 78 characters in a scrolling field) and numbers (with and without decimals).

317 clear_gets:

This procedure clears the current get. It is activated when you are in the browse mode and are editing a field, and then you press the up or down arrow keys to go to the next field. It must be a separate procedure because it is activated by the set key command

334 xseek:

This function is a keystroke handler for dbedit. It allows dbedit to seek to the first record corresponding to the key which is pressed. It returns ret_val to dbedit telling it what to do. You will need to read the Clipper manual to understand this.

Line Routine Description

**File FILEHAND.PRG**

18 addnewfile:

This function adds a new file name to the list of available files for the application. If the file doesn't exist, it is built (using buildfile). It then checks each of the indexes for this files (using chkidx).

66 getfileid:

This function returns the position in the file name array of this file name.

81 openfile:

This function opens a specific file name, and all of its indexes, and makes it the current work area.

131 closefile:

This function closes a file (work area) that may not be the current file (work area). It optionally selects a work area to be current (otherwise, you take your chances as to which work area will be the current one).

156 del_record:

This is the user interface to delete a single record. It confirms the users choice to delete, finds out what record is to be made current next, and then deletes the record.

184 whatsnext:

This function returns an adjacent record, in index order, to the current record. The default is the next record, but if that fails, then return the previous record.

209 findkey:

This function determines which of the indexes that the file may contain is the index that is desired. Use of this feature frees the programmer from having to know much about the order of his indexes.

242 align:

This function positions a file, which is not the current file (work area), to a specific indexed position. It is used instead of setting a relation because it can be much faster.

264 getdatetime:

This function determines the date and time of a file name.

285 chkidx:

This function checks the index existence, date, and key expression. If there are any problems with this index, then it is rebuilt. The database in question must already be in use for this procedure.

333 doindex:

This function performs the actual indexing operation.

359 doskip:

This function skips a file in either direction, but requires that the file pointer remain within a specific range in the current index. If you try to skip outside that range, then the computer beeps.

406 addrec:

This function controls the adding of a new record to a file. Before it will append a blank record, it first checks to see if there are any deleted records at the bottom of the file. If so, then a deleted record is recalled and reused.

<u>Line</u> <u>Routine</u> <u>Description</u>

431 del_rec:

This procedure deletes the current record, and positions it at the bottom of the file (in index order) by filling the first field in the index expression with chr(255) or 9999.

458 zaprecord:

This function "erases" an entire record.

**File TEXTVIEW.PRG**

19 doviewtext:

This procedure is the user interface to the text viewer. It lists the text files available in the local directory. When the user selects a file, then he can view it, print it, or delete it.

87 scrollfile:

This function opens a scrolling window to view the contents of an ASCII file. It is not limited by file size, unlike the memoedit function. The window takes over the whole screen.

189 writescreen:

This function displays the entire screen.

209 scrollfwd:

This function scrolls the screen one line up, and then displays the last line of text.

227 scrollbkwd:

This function scrolls the screen down one line, and then displays the last line of text.

245 initscreen:

This function reads from a file, forward from the beginning of the file, filling the array 'lines' with lines of data. It fills the parallel array 'starts' with the starting points of each line of text. It returns .T. if the read is ok. It revises the value of endpos to be the character position of the next line in the file after all the reads.

287 readscrfwd:

This function reads from a file, forward from the old ending position, for nlines-1 of data, one line at a time. It returns .T. if the read is ok. It revises the value of endpos to be the character position of the next line in the file after all the reads.

320 readlinefwd:

This function reads from a file, forward from the old ending position, putting the new line into last element of the array lines, and scrolling the elements of the array up one. It returns .T. if the read is ok. It revises the value of endpos to be the character position of the next line in the file after the read.

357 readfwd:

This function reads from a file, forward from the start position, and parses this into the next line for text display. It returns .T. if the read is ok. It revises the value of endpos to be the character position of the next line in the file.

395 readscrbkwd:

This function reads from a file, backward from the old starting position, for nlines-1 of data, one line at a time. It returns .T. if the read is ok. It revises the value of endpos to be the character position of the next line in the file after all the reads.

Line Routine Description

428 readlinebkwd:

This function reads from a file, backward from the first starting position, putting the new line into first element of the array lines, and scrolling the elements of the array down one. It returns .T. if the read is ok. It revises the value of endpos to be the character position of the line that was pitched.

466 readbkwd:

This function reads from a file, backward from the end position, and parses this into the next line for text display. It returns .T. if the read is ok. It revises the value of start to be the first character position of this line in the file.

**File UTILITY.PRG**

22 go_general:

This function is used to execute a generic GoTo capability within a file. It is usually used when the whole file can be accessed (use the function 'go_spec' to display just a range of records). It sets up a dbedit window.

70 go_spec:

This function has the same use as 'go_general', except that it restricts the choices to a range of records defined by the current index key and a passed key segment. It works by reading the field expressions into an array, which is slower than dbedit but has other advantages.

118 isinfile:

This function is used as a general purpose valid statement when the possible answers are contained in a specific file. This can be used even if only some of the records in that file can satisfy the valid condition.

191 nofunction:

This function is merely a place-holder or stub for a feature which is not yet implemented.

204 win_print:

This function prints the contents of the current window. This is like a print screen, except that everything outside the window is omitted.

236 nonzero:

This function determines if there are any non-zero elements in an array.

254 tabisdown:

This procedure places a down-arrow keystroke on the keyboard buffer whenever the tab key is pressed.

267 shtabisup:

This procedure places an up-arrow keystroke on the keyboard buffer whenever the shift-tab key is pressed.

280 checklevel:

This executes a specified function if the user's permission level is less than or equal to the required permission level for the function call. It returns whatever is returned by the function. If the user does not have sufficient permission, this function warns the user and returns false. The user's permlevel is set in the main program.

Line Routine Description

302 popq:

This executes a specified function if the passed string contains a question mark ('?'). It is used in 'valid' clauses to conditionally execute the 'valid' function.

320 orblank:

This executes a specified function if the passed string is not empty. It is used in 'valid' clauses to conditionally execute the 'valid' function.

338 showeditmsg:

This function puts one of several status messages at the lower right of the screen.

367 leftjust:

This function left-justifies a message on the screen.

382 pad:

This function is used to force a string to a specific length, by adding spaces to the end or by truncating it. It is needed extensively in report formating.

397 choose:

This function produces a basic pop-up selection window. It is used for menus and pop-up selection lists.

459 fillpu:

This function is used to simplify the definition of the parameters to be passed to 'choosemenu'.

476 escape:

This function puts the <Escape> key into the keyboard, so that the user can have a 'Done' prompt on the 'choosemenu' list that will exit the menu.

490 ahandler:

This is a keystroke handler that is used by 'achoice' to intercept keystrokes and let the programmer control what goes on. It's function is to implement the help system so that it responds to each individual prompt. You need to read the Clipper documentation on this, since it is not self-evident (see achoice and dbedit).

529 choosemenu:

This is a principal part of the menu system. It displays a pop-up window with menu choices. The user selects any choice by highlighting it and pressing <enter>. The program then executes a function associated with that menu choice. Control then returns to the menu. The menu is exited by pressing the <escape> key or by calling the escape function.

590 cent:

This function displays a text string centered within a left and right boundary.

609 warnem:

This function produces a standard one or two line warning message window. It displays an OK prompt and waits for the user to respond.

647 genmsgwindow:

This function opens a generic message window. It starts at the top (which is passed) and extends down as far as required by the length of the message. The window is centered on the screen with the passed width. Hard carriage returns can be coded into the message by using a semicolon.

692 askok:

This function provides the trivial prompt 'Ok' for genmsgwindow.

| Line | Routine | Description |
|---|---|---|
| 707 | amaxlen: | This function determines the maximum length of array elements, particularly for string array elements. |
| 725 | alength: | This function determines the number of elements in an array which are defined. |
| 744 | optselect: | This function is used to prompt the user when there are up to six choices. This is typically used in 'Yes/No' type questions. |
| 809 | setdest: | This function lets the user specify whether to send reports to the printer or to a file. It checks the printer to see that it is on-line. |
| 881 | closepage: | This function writes a page eject character (12) to the printer or output file. It is used frequently in reports to start a new page and to terminate a report. |
| 895 | clnupdest: | This function is the terminator for the setdest routine. It turns off the printing and closes the alternate file and sets the console back on. You should run this everytime setdest executes successfully to get back on track. |
| 912 | tlbr: | This function makes it easier to assign the top, left, bottom, and right corners of the window. |
| 930 | openwindow: | This function opens a window, using the local variables t,l,b,r defined in the calling routine. It returns the buffer character string of the screen contents before the window was opened. If width and/or height is provided, then the window will be centered in width and/or height. |
| 969 | closewindow: | This function is the companion to openwindow. Use it to close the window. Don't forget that it also needs t,l,b,r which should be defined as local variables in the calling routine. |
| 984 | norec: | This function checks to see that there are records in the database before it executes the specified. Use it whenever the specified function is unstable when the database is empty. |
| 1002 | fillpvp: | This function loads the arrays used by getthese. The arrays are defined in the calling routine. |
| 1024 | getthese: | This is a generalized gets window. It stacks a number of gets vertically and aligns them neatly. |
| 1102 | showmemory: | This procedure is used with a hot-key to let the user find out how much system RAM he has left. It can be important in Clipper applications because RAM is not freed up cleanly. |
| 1127 | fillpmu: | This function fills the arrays needed to operate the horizontal ('doit') menu. |

| Line | Routine | Description |
|---|---|---|
| 1148 | doit: | This function is a generalized horizontal light bar menu with user defined functions, which are executed when a menu item is selected. |
| 1190 | lmenu: | This function is the actual light bar menu drawing routine. |
| 1230 | dosvers: | This function returns the DOS version as a string. This is needed to identify old versions of DOS. |
| 1246 | help: | This procedure displays and optionally edits the on-line context sensitive help text. |
| 1338 | xmemo: | This function is a keystroke handler for the Clipper memoedit function. See the manual for details. It only checks for the escape key if the text has been edited. If so, then it allows the user to go back to editing, or to lose his changes. |
| 1370 | ispath: | This function is used in valids to ensure that when the user provides you a path name to a disk or a subdirectory, that it is OK to use. |

## *3.2 FUNCTION AND PROCEDURE MAPPING BY NAME*

This paragraph presents a mapping of each function and procedure in the BPM by name. They are listed alphabetically, along with the procedure and line number they appear in. This will be very useful in locating a specific piece of code (there are 417 procedures and functions in the BPM).

| Routine | Program File | Line |
|---|---|---|
| aadd | BPM_GENL.PRG | 830 |
| aaddf | BPM_GENL.PRG | 1114 |
| accept_rates | BPM_ANAL.PRG | 2023 |
| addnewfile | FILEHAND.PRG | 35 |
| addupfactors | BPM_EDIT.PRG | 140 |
| add_field | BPM_AMCC.PRG | 1165 |
| add_rec | FILEHAND.PRG | 418 |
| alength | UTILITY.PRG | 733 |
| align | FILEHAND.PRG | 254 |
| allocadd | BPM_REP1.PRG | 1515 |
| allocate_costs | BPM_REP1.PRG | 437 |
| alloccomp | BPM_REP1.PRG | 1488 |
| allocsu | BPM_REP1.PRG | 1544 |
| alloc_cost | BPM_WHA1.PRG | 736 |
| alloc_det | BPM_AMCC.PRG | 1187 |
| alloc_one | BPM_WHA1.PRG | 834 |
| alloc_wky | BPM_WHA1.PRG | 768 |
| amaxlen | UTILITY.PRG | 715 |
| amcc1 | BPM_AMCC.PRG | 57 |
| amcc1a | BPM_AMCC.PRG | 83 |
| amcc1b | BPM_AMCC.PRG | 110 |
| amcc1c | BPM_AMCC.PRG | 137 |
| amcc1d | BPM_AMCC.PRG | 164 |
| amcc1e | BPM_AMCC.PRG | 192 |
| amcc2 | BPM_AMCC.PRG | 313 |
| amcc3 | BPM_AMCC.PRG | 403 |
| amcc4 | BPM_AMCC.PRG | 501 |
| amcc5 | BPM_AMCC.PRG | 355 |
| amccharts | BPM_AMCC.PRG | 28 |
| amcc_ihoh | BPM_AMCC.PRG | 632 |
| amult | BPM_GENL.PRG | 874 |
| anal_details | BPM_ANAL.PRG | 320 |
| anonzero | BPM_REP2.PRG | 1069 |
| ardist | BPM_WHA1.PRG | 2081 |
| ardiv | BPM_WHA1.PRG | 2039 |
| arneg | BPM_WHA1.PRG | 2132 |
| arsum | BPM_WHA1.PRG | 2061 |

| Routine | Program File | Line |
|---|---|---|
| arvadd | BPM_WHA1.PRG | 2098 |
| arvsub | BPM_WHA1.PRG | 2115 |
| askok | UTILITY.PRG | 700 |
| assorted | BPM_ASST.PRG | 27 |
| asub | BPM_GENL.PRG | 852 |
| avdiv | BPM_GENL.PRG | 1153 |
| avgload | BPM_ASST.PRG | 349 |
| avmult | BPM_GENL.PRG | 1131 |
| a_handler | UTILITY.PRG | 507 |
| balance1 | BPM_REP1.PRG | 1647 |
| balance2 | BPM_REP1.PRG | 1688 |
| balance3 | BPM_REP1.PRG | 1728 |
| balances | BPM_REP1.PRG | 1625 |
| bal_part1 | BPM_REP1.PRG | 1791 |
| bal_part2 | BPM_REP1.PRG | 1894 |
| baseline | BPM_ANAL.PRG | 27 |
| blank_if_cont | BPM_EDIT.PRG | 1892 |
| browse | BROWSER.PRG | 116 |
| buildfile | BPM_OPEN.PRG | 226 |
| calloc_one | BPM_WHA1.PRG | 894 |
| calloc_wky | BPM_WHA1.PRG | 800 |
| cctot | BPM_EDIT.PRG | 2324 |
| cent | UTILITY.PRG | 601 |
| checklevel | UTILITY.PRG | 293 |
| checkone | BPM_ASST.PRG | 178 |
| chkidx | FILEHAND.PRG | 304 |
| choose | UTILITY.PRG | 421 |
| choosemenu | UTILITY.PRG | 554 |
| clear_gets | BROWSER.PRG | 329 |
| clnupdest | UTILITY.PRG | 905 |
| closefile | FILEHAND.PRG | 144 |
| closepage | UTILITY.PRG | 890 |
| closewindow | UTILITY.PRG | 978 |
| compare_wif | BPM_WHA2.PRG | 1860 |
| compass | BPM_ANAL.PRG | 1825 |
| compchg | BPM_WHA1.PRG | 321 |
| compcpb | BPM_ANAL.PRG | 1679 |
| compose_line | BPM_REP2.PRG | 1015 |
| compwky | BPM_ANAL.PRG | 1761 |
| copydata | BPM_ASST.PRG | 533 |
| copyone | BPM_ASST.PRG | 577 |
| corefilt | BPM_REPT.PRG | 975 |
| core_dollars | BPM_REPT.PRG | 871 |
| core_qc | BPM_REPT.PRG | 799 |
| core_tot | BPM_AMCC.PRG | 684 |
| ctreport | BPM_AMCC.PRG | 1227 |

| Routine | Program File | Line |
|---|---|---|
| ctr_toggle | BPM_ANAL.PRG | 816 |
| c_o | BPM_REP2.PRG | 1053 |
| data_entry | BPM_EDIT.PRG | 28 |
| defineallfiles | BPM_OPEN.PRG | 181 |
| deleteone | BPM_ASST.PRG | 496 |
| delete_lab | BPM_ASST.PRG | 409 |
| del_allbut | BPM_ASST.PRG | 451 |
| del_personnel | BPM_EDIT.PRG | 2009 |
| del_rec | FILEHAND.PRG | 444 |
| del_record | FILEHAND.PRG | 170 |
| del_revenue | BPM_EDIT.PRG | 836 |
| dircust | BPM_GENL.PRG | 697 |
| dirorgcalc | BPM_WHA1.PRG | 1814 |
| disp_capital | BPM_ANAL.PRG | 566 |
| disp_contract | BPM_ANAL.PRG | 514 |
| disp_expense | BPM_ANAL.PRG | 363 |
| disp_external | BPM_ANAL.PRG | 448 |
| disp_foe | BPM_ANAL.PRG | 81 |
| disp_foe_guts | BPM_ANAL.PRG | 144 |
| disp_internal | BPM_ANAL.PRG | 617 |
| disp_rates | BPM_ANAL.PRG | 1943 |
| disp_wkyrs | BPM_ANAL.PRG | 689 |
| dobrowse | BROWSER.PRG | 31 |
| docheck | BPM_ASST.PRG | 131 |
| doindex | FILEHAND.PRG | 345 |
| doit | UTILITY.PRG | 1166 |
| dolicense | BPM_OPEN.PRG | 36 |
| doload | BPM_ASST.PRG | 237 |
| dopack | BPM_ASST.PRG | 89 |
| dopessimism | BPM_WHA1.PRG | 369 |
| doproj_org_tda | BPM_WHA2.PRG | 1751 |
| doreindex | BPM_ASST.PRG | 57 |
| doskip | FILEHAND.PRG | 374 |
| dosvers | UTILITY.PRG | 1238 |
| dotoggle | BPM_ANAL.PRG | 267 |
| doviewtext | TEXTVIEW.PRG | 38 |
| edit_baseyear | BPM_SYST.PRG | 787 |
| edit_foe_factors | BPM_EDIT.PRG | 168 |
| edit_main_factors | BPM_EDIT.PRG | 262 |
| edit_personnel | BPM_EDIT.PRG | 1740 |
| edit_revenue | BPM_EDIT.PRG | 604 |
| escape | UTILITY.PRG | 485 |
| est_factor | BPM_EDIT.PRG | 334 |
| eval_toggle | BPM_WHA2.PRG | 393 |
| expenses | BPM_REP1.PRG | 33 |
| e_capital | BPM_EDIT.PRG | 2474 |

| Routine | Program File | Line |
|---|---|---|
| e_capmaj | BPM_EDIT.PRG | 1357 |
| e_carry | BPM_EDIT.PRG | 811 |
| e_corecap | BPM_EDIT.PRG | 2238 |
| e_cpb_ga | BPM_WHA1.PRG | 947 |
| e_cpb_wky | BPM_WHA1.PRG | 914 |
| e_ctda | BPM_SYST.PRG | 614 |
| e_factor | BPM_EDIT.PRG | 295 |
| e_internal | BPM_EDIT.PRG | 1492 |
| e_major | BPM_EDIT.PRG | 1085 |
| e_off | BPM_SYST.PRG | 221 |
| e_opt_pers | BPM_WHA1.PRG | 1288 |
| e_org | BPM_SYST.PRG | 112 |
| e_personnel | BPM_EDIT.PRG | 1799 |
| e_per_item | BPM_EDIT.PRG | 1934 |
| e_pessimism | BPM_WHA1.PRG | 216 |
| e_product | BPM_EDIT.PRG | 1616 |
| e_revenue | BPM_EDIT.PRG | 679 |
| e_revtype | BPM_SYST.PRG | 508 |
| e_rev_item | BPM_EDIT.PRG | 946 |
| e_skill | BPM_SYST.PRG | 318 |
| e_source | BPM_SYST.PRG | 414 |
| e_support | BPM_EDIT.PRG | 1221 |
| e_tda_org | BPM_WHA2.PRG | 452 |
| e_tda_tgt | BPM_WHA2.PRG | 254 |
| e_tda_what | BPM_WHA2.PRG | 103 |
| fillfld | BROWSER.PRG | 73 |
| fillnf | BPM_REP2.PRG | 55 |
| fillpmu | UTILITY.PRG | 1138 |
| fillpu | UTILITY.PRG | 469 |
| fillpvp | UTILITY.PRG | 1015 |
| findkey | FILEHAND.PRG | 221 |
| gasubsidy | BPM_WHA1.PRG | 1857 |
| genload | BPM_ASST.PRG | 322 |
| genmsgwindow | UTILITY.PRG | 665 |
| getdatetime | FILEHAND.PRG | 276 |
| getfileid | FILEHAND.PRG | 76 |
| getfiltcond | BPM_REP2.PRG | 1089 |
| getthese | UTILITY.PRG | 1051 |
| get_array | BPM_GENL.PRG | 920 |
| get_cap | BPM_EDIT.PRG | 2351 |
| get_cost_tot | BPM_ANAL.PRG | 295 |
| get_factor | BPM_EDIT.PRG | 437 |
| get_pic | BROWSER.PRG | 298 |
| get_totals | BPM_ANAL.PRG | 1616 |
| get_wkyrs | BPM_EDIT.PRG | 1984 |
| go_corecap | BPM_EDIT.PRG | 2218 |

| Routine | Program File | Line |
|---|---|---|
| go_general | UTILITY.PRG | 38 |
| go_spec | UTILITY.PRG | 87 |
| help | UTILITY.PRG | 1265 |
| incr_baseyear | BPM_SYST.PRG | 693 |
| initscreen | TEXTVIEW.PRG | 264 |
| intl_diag | BPM_REPT.PRG | 571 |
| isinfile | UTILITY.PRG | 140 |
| ispath | UTILITY.PRG | 1381 |
| larray | BPM_GENL.PRG | 801 |
| leftjust | UTILITY.PRG | 375 |
| limit_overtime | BPM_SYST.PRG | 1008 |
| listcapstr | BPM_REP2.PRG | 1266 |
| list_avg_fact | BPM_REPT.PRG | 1029 |
| list_cap1 | BPM_REP2.PRG | 302 |
| list_capital | BPM_EDIT.PRG | 2580 |
| list_center | BPM_REPT.PRG | 71 |
| list_core1 | BPM_REP2.PRG | 329 |
| list_corecap | BPM_REPT.PRG | 775 |
| list_ctda | BPM_REP2.PRG | 450 |
| list_engine | BPM_REP2.PRG | 894 |
| list_ext1 | BPM_REP2.PRG | 141 |
| list_fac1 | BPM_REP2.PRG | 86 |
| list_factors | BPM_EDIT.PRG | 496 |
| list_int1 | BPM_REP2.PRG | 187 |
| list_off | BPM_REP2.PRG | 394 |
| list_orgs | BPM_REP2.PRG | 352 |
| list_pers1 | BPM_REP2.PRG | 267 |
| list_personnel | BPM_EDIT.PRG | 2080 |
| list_pess1 | BPM_WHA1.PRG | 1013 |
| list_pessimism | BPM_WHA1.PRG | 989 |
| list_pess_rev | BPM_REP2.PRG | 472 |
| list_prod1 | BPM_REP2.PRG | 229 |
| list_rates | BPM_ANAL.PRG | 2002 |
| list_rev1 | BPM_REP2.PRG | 105 |
| list_revenue | BPM_EDIT.PRG | 980 |
| list_revtypes | BPM_REP2.PRG | 429 |
| list_skills | BPM_REP2.PRG | 376 |
| list_sources | BPM_REP2.PRG | 412 |
| list_tda1 | BPM_WHA2.PRG | 1399 |
| list_tda2 | BPM_WHA2.PRG | 1432 |
| list_tda3 | BPM_WHA2.PRG | 1508 |
| list_tda4 | BPM_WHA2.PRG | 1553 |
| list_tda5 | BPM_WHA2.PRG | 1633 |
| list_tda_org | BPM_WHA2.PRG | 1375 |
| list_tda_wif | BPM_WHA2.PRG | 1347 |
| list_tot1 | BPM_REPT.PRG | 114 |

| Routine | Program File | Line |
|---|---|---|
| list_totals | BPM_REPT.PRG | 35 |
| list_wifl | BPM_REP2.PRG | 507 |
| loadpsf | BPM_REP2.PRG | 1205 |
| loadrevs | BPM_WHA1.PRG | 1989 |
| load_foe_factors | BPM_EDIT.PRG | 392 |
| load_main_factors | BPM_EDIT.PRG | 364 |
| load_orgs | BPM_OPEN.PRG | 483 |
| l_cap | BPM_REPT.PRG | 435 |
| l_exp | BPM_REPT.PRG | 291 |
| l_ext | BPM_REPT.PRG | 353 |
| l_int | BPM_REPT.PRG | 470 |
| l_main | BPM_REPT.PRG | 176 |
| l_menu | UTILITY.PRG | 1200 |
| l_supt | BPM_REPT.PRG | 401 |
| l_wkyrs | BPM_REPT.PRG | 521 |
| minmax | BPM_GENL.PRG | 898 |
| move_personnel | BPM_EDIT.PRG | 2040 |
| move_revenue | BPM_EDIT.PRG | 892 |
| net_carry | BPM_REP2.PRG | 1291 |
| net_rev | BPM_REP2.PRG | 1337 |
| net_revenue | BPM_REP2.PRG | 1317 |
| nofunction | UTILITY.PRG | 199 |
| nonzero | UTILITY.PRG | 244 |
| norec | UTILITY.PRG | 993 |
| okapn | BPM_GENL.PRG | 184 |
| okass | BPM_GENL.PRG | 432 |
| okcat | BPM_GENL.PRG | 219 |
| okdc | BPM_GENL.PRG | 406 |
| okext | BPM_GENL.PRG | 298 |
| okfact | BPM_GENL.PRG | 545 |
| okfoe | BPM_GENL.PRG | 667 |
| okgrp | BPM_GENL.PRG | 136 |
| okintlab | BPM_GENL.PRG | 634 |
| oklab | BPM_GENL.PRG | 609 |
| okontda | BPM_GENL.PRG | 466 |
| okoper | BPM_REP2.PRG | 1121 |
| okorg | BPM_GENL.PRG | 487 |
| okpers | BPM_GENL.PRG | 325 |
| okpos | BPM_GENL.PRG | 352 |
| okps | BPM_GENL.PRG | 270 |
| okskl | BPM_GENL.PRG | 515 |
| oksrc | BPM_GENL.PRG | 56 |
| okwky | BPM_GENL.PRG | 581 |
| okyn | BPM_GENL.PRG | 380 |
| oneorgcalc | BPM_WHA1.PRG | 1771 |
| one_measure | BPM_WHA2.PRG | 1486 |

| Routine | Program File | Line |
|---|---|---|
| openfile | FILEHAND.PRG | 94 |
| openwindow | UTILITY.PRG | 943 |
| optselect | UTILITY.PRG | 767 |
| opt_calc | BPM_WHA1.PRG | 1595 |
| opt_disp | BPM_WHA1.PRG | 1362 |
| opt_fact | BPM_WHA1.PRG | 1393 |
| opt_fact1 | BPM_WHA1.PRG | 1416 |
| opt_fact2 | BPM_WHA1.PRG | 1478 |
| opt_list | BPM_WHA1.PRG | 2150 |
| opt_list1 | BPM_WHA1.PRG | 2173 |
| opt_list2 | BPM_WHA1.PRG | 2207 |
| opt_list3 | BPM_WHA1.PRG | 2236 |
| opt_personnel | BPM_WHA1.PRG | 1126 |
| opt_save | BPM_WHA1.PRG | 2266 |
| opt_view | BPM_WHA1.PRG | 1535 |
| opt_view1 | BPM_WHA1.PRG | 1554 |
| opt_view2 | BPM_WHA1.PRG | 1567 |
| opt_view3 | BPM_WHA1.PRG | 1580 |
| orblank | UTILITY.PRG | 330 |
| org_measure | BPM_WHA2.PRG | 1610 |
| org_nets | BPM_REPT.PRG | 703 |
| pad | UTILITY.PRG | 392 |
| pcttoggle | BPM_WHA1.PRG | 1273 |
| pessfilt | BPM_WHA1.PRG | 181 |
| pess_adj | BPM_WHA1.PRG | 676 |
| pess_adj_exp | BPM_WHA1.PRG | 653 |
| pess_scan | BPM_WHA1.PRG | 505 |
| pess_show | BPM_WHA1.PRG | 694 |
| popq | UTILITY.PRG | 312 |
| post_repl | BPM_EDIT.PRG | 2553 |
| post_totals | BPM_ANAL.PRG | 1578 |
| project_tda | BPM_WHA2.PRG | 1683 |
| proj_org_tda | BPM_WHA2.PRG | 1784 |
| put_array | BPM_GENL.PRG | 1044 |
| put_cap | BPM_EDIT.PRG | 2376 |
| put_factor | BPM_EDIT.PRG | 461 |
| put_totals | BPM_ANAL.PRG | 1547 |
| readbkwd | TEXTVIEW.PRG | 483 |
| readfwd | TEXTVIEW.PRG | 373 |
| readjust | BPM_REP1.PRG | 1579 |
| readlinebkwd | TEXTVIEW.PRG | 447 |
| readlinefwd | TEXTVIEW.PRG | 339 |
| readscrbkwd | TEXTVIEW.PRG | 411 |
| readscrfwd | TEXTVIEW.PRG | 303 |
| recalc_all | BPM_ANAL.PRG | 899 |
| recalc_lab | BPM_ANAL.PRG | 1151 |

| Routine | Program File | Line |
|---|---|---|
| recalc_tda | BPM_WHA2.PRG | 784 |
| recalc_year | BPM_WHA2.PRG | 1234 |
| recalc_yr | BPM_WHA2.PRG | 1267 |
| recomp_center | BPM_ANAL.PRG | 952 |
| recomp_foe | BPM_ANAL.PRG | 1299 |
| recomp_lab | BPM_ANAL.PRG | 1180 |
| reloaddata | BPM_WHA1.PRG | 1903 |
| removeone | BPM_SYST.PRG | 920 |
| remove_empty | BPM_SYST.PRG | 823 |
| remove_unlinked | BPM_SYST.PRG | 942 |
| rem_old_names | BPM_REP2.PRG | 1241 |
| rem_ts_cost | BPM_ANAL.PRG | 1117 |
| rerecalc_tda | BPM_WHA2.PRG | 1174 |
| retrieve_costs | BPM_REP1.PRG | 375 |
| rev_pessimism | BPM_WHA1.PRG | 134 |
| savepsf | BPM_REP2.PRG | 1162 |
| scrollbkwd | TEXTVIEW.PRG | 237 |
| scrollfile | TEXTVIEW.PRG | 110 |
| scrollfwd | TEXTVIEW.PRG | 219 |
| sel_foe | BPM_OPEN.PRG | 566 |
| sel_lab_foe | BPM_OPEN.PRG | 593 |
| setdest | UTILITY.PRG | 826 |
| set_salary | BPM_EDIT.PRG | 1914 |
| showdemomsg | BPM_OPEN.PRG | 64 |
| showeditmsg | UTILITY.PRG | 346 |
| showmemory | UTILITY.PRG | 1111 |
| showrecmsg | BPM_WHA2.PRG | 433 |
| show_arr | BPM_REP2.PRG | 956 |
| show_line_length | BPM_REP2.PRG | 985 |
| show_overall | BPM_WHA2.PRG | 545 |
| shtabisup | UTILITY.PRG | 275 |
| source_use | BPM_REP1.PRG | 1048 |
| split_chart | BPM_AMCC.PRG | 231 |
| sys_edit | BPM_SYST.PRG | 30 |
| tabisdown | UTILITY.PRG | 262 |
| tda_eval_comp | BPM_WHA2.PRG | 179 |
| tda_tot | BPM_WHA2.PRG | 578 |
| tda_tot_comp | BPM_WHA2.PRG | 627 |
| tda_whatif | BPM_WHA2.PRG | 50 |
| tech_base_ihoh | BPM_REP1.PRG | 847 |
| tempupgrade | BPM_OPEN.PRG | 163 |
| te_tda_org | BPM_WHA2.PRG | 1949 |
| te_tot | BPM_WHA2.PRG | 1912 |
| tgt_toggle | BPM_WHA2.PRG | 349 |
| tlbr | UTILITY.PRG | 921 |
| toggle_list | BPM_ASST.PRG | 597 |

| Routine | Program File | Line |
|---|---|---|
| total_engine | BPM_REP3.PRG | 614 |
| tot_cap1 | BPM_REP3.PRG | 340 |
| tot_carry | BPM_REP3.PRG | 224 |
| tot_ctda | BPM_SYST.PRG | 668 |
| tot_exp1 | BPM_REP1.PRG | 104 |
| tot_exp2 | BPM_REP1.PRG | 542 |
| tot_ext1 | BPM_REP3.PRG | 93 |
| tot_int1 | BPM_REP3.PRG | 140 |
| tot_netrev | BPM_REP3.PRG | 263 |
| tot_pers1 | BPM_REP3.PRG | 302 |
| tot_pess_rev | BPM_REP3.PRG | 368 |
| tot_rev1 | BPM_REP3.PRG | 53 |
| tot_rev2 | BPM_REP3.PRG | 185 |
| tsamt | BPM_REP1.PRG | 1987 |
| ts_amounts | BPM_REP1.PRG | 1966 |
| unlinked | BPM_SYST.PRG | 975 |
| upgrade | BPM_OPEN.PRG | 88 |
| upgrone | BPM_OPEN.PRG | 132 |
| user_defined | BPM_REP2.PRG | 618 |
| user_totals | BPM_REP3.PRG | 443 |
| view_capital | BPM_EDIT.PRG | 2413 |
| view_capmaj | BPM_EDIT.PRG | 1296 |
| view_center | BPM_ANAL.PRG | 766 |
| view_corecap | BPM_EDIT.PRG | 2116 |
| view_ctda | BPM_SYST.PRG | 567 |
| view_foe_factors | BPM_EDIT.PRG | 68 |
| view_internal | BPM_EDIT.PRG | 1431 |
| view_main_factors | BPM_EDIT.PRG | 219 |
| view_major | BPM_EDIT.PRG | 1024 |
| view_off | BPM_SYST.PRG | 176 |
| view_orgs | BPM_SYST.PRG | 66 |
| view_personnel | BPM_EDIT.PRG | 1672 |
| view_products | BPM_EDIT.PRG | 1564 |
| view_rates | BPM_ANAL.PRG | 1884 |
| view_revenue | BPM_EDIT.PRG | 530 |
| view_revtypes | BPM_SYST.PRG | 463 |
| view_skills | BPM_SYST.PRG | 272 |
| view_sources | BPM_SYST.PRG | 369 |
| view_support | BPM_EDIT.PRG | 1160 |
| view_tda_org | BPM_WHA2.PRG | 293 |
| view_totals | BPM_ANAL.PRG | 52 |
| warnem | UTILITY.PRG | 624 |
| whatif | BPM_WHA1.PRG | 38 |
| whatsnext | FILEHAND.PRG | 195 |
| wiforg | BPM_WHA2.PRG | 1831 |
| win_print | UTILITY.PRG | 215 |

| Routine | Program File | Line |
|---|---|---|
| wkyrs_adjust | BPM_WHA2.PRG | .737 |
| writescreen | TEXTVIEW.PRG | 198 |
| wr_arr | BPM_GENL.PRG | 783 |
| wr_duls | BPM_GENL.PRG | 765 |
| wr_uls | BPM_GENL.PRG | 750 |
| wr_years | BPM_GENL.PRG | 718 |
| xbrowse | BROWSER.PRG | 187 |
| xmemo | UTILITY.PRG | 1350 |
| xseek | BROWSER.PRG | 349 |
| years | BPM_GENL.PRG | 735 |
| zaprecord | FILEHAND.PRG | 471 |

# CHAPTER 4

# CROSS REFERENCE TO CALLED FUNCTIONS/PROCEDURES

The following table is a cross references between BPM functions/procedures and the functions and procedures that they call. This is an important tool for programmers who want to understand or modify the BPM program files. Only routines that are non-standard Clipper are included. This list is created a program and should be more comprehensive and more current than the documented code files.

| Calling Routine | Called Routine |
|---|---|
| aaddf | aadd |
| aaddf | get_array |
| accept_rates | optselect |
| accept_rates | put_factor |
| accept_rates | warnem |
| addnewfile | buildfile |
| addnewfile | chkidx |
| addnewfile | optselect |
| addupfactors | aadd |
| addupfactors | wr_arr |
| add_rec | zaprecord |
| allocate_costs | aadd |
| allocate_costs | avdiv |
| allocate_costs | avmult |
| allocate_costs | larray |
| allocate_costs | nonzero |
| alloccomp | allocadd |
| alloc_cost | alloc_one |
| alloc_cost | alloc_wky |
| alloc_cost | choose |
| alloc_cost | e_cpb_ga |
| alloc_cost | e_cpb_wky |
| alloc_cost | fillpu |
| alloc_cost | pess_show |
| alloc_one | amult |
| alloc_one | asub |
| alloc_one | avdiv |
| alloc_one | calloc_one |
| alloc_one | closewindow |
| alloc_one | openwindow |
| alloc_one | optselect |

| Calling Routine | Called Routine |
|---|---|
| alloc_one | showeditmsg |
| alloc_one | tlbr |
| alloc_one | wr_arr |
| alloc_one | wr_uls |
| alloc_one | wr_years |
| alloc_wky | aadd |
| alloc_wky | asub |
| alloc_wky | avdiv |
| alloc_wky | avmult |
| alloc_wky | calloc_wky |
| alloc_wky | optselect |
| alloc_wky | showeditmsg |
| amcc1 | clnupdest |
| amcc1 | closefile |
| amcc1 | closepage |
| amcc1 | openfile |
| amcc1 | setdest |
| amcc1 | split_chart |
| amcc1a | clnupdest |
| amcc1a | closefile |
| amcc1a | closepage |
| amcc1a | openfile |
| amcc1a | setdest |
| amcc1a | split_chart |
| amcc1b | clnupdest |
| amcc1b | closefile |
| amcc1b | closepage |
| amcc1b | openfile |
| amcc1b | setdest |
| amcc1b | split_chart |
| amcc1c | clnupdest |
| amcc1c | closefile |
| amcc1c | closepage |
| amcc1c | openfile |
| amcc1c | setdest |
| amcc1c | split_chart |
| amcc1d | clnupdest |
| amcc1d | closefile |
| amcc1d | closepage |
| amcc1d | openfile |
| amcc1d | setdest |
| amcc1d | split_chart |
| amcc1e | clnupdest |
| amcc1e | closefile |
| amcc1e | closepage |
| amcc1e | openfile |

| Calling Routine | Called Routine |
|---|---|
| amcc1e | setdest |
| amcc1e | split_chart |
| amcc2 | aadd |
| amcc2 | aaddf |
| amcc2 | clnupdest |
| amcc2 | closefile |
| amcc2 | closepage |
| amcc2 | larray |
| amcc2 | openfile |
| amcc2 | pad |
| amcc2 | setdest |
| amcc2 | years |
| amcc3 | aadd |
| amcc3 | clnupdest |
| amcc3 | closefile |
| amcc3 | closepage |
| amcc3 | get_wkyrs |
| amcc3 | larray |
| amcc3 | openfile |
| amcc3 | setdest |
| amcc3 | years |
| amcc4 | aadd |
| amcc4 | aaddf |
| amcc4 | avdiv |
| amcc4 | avmult |
| amcc4 | clnupdest |
| amcc4 | closefile |
| amcc4 | closepage |
| amcc4 | get_array |
| amcc4 | openfile |
| amcc4 | put_array |
| amcc4 | setdest |
| amcc4 | split_chart |
| amcc5 | aadd |
| amcc5 | aaddf |
| amcc5 | clnupdest |
| amcc5 | closefile |
| amcc5 | closepage |
| amcc5 | larray |
| amcc5 | openfile |
| amcc5 | pad |
| amcc5 | setdest |
| amcc5 | years |
| amccharts | amcc1 |
| amccharts | amcc1a |
| amccharts | amcc1b |

| Calling Routine | Called Routine |
|---|---|
| amccharts | amcc1c |
| amccharts | amcc1d |
| amccharts | amcc1e |
| amccharts | amcc2 |
| amccharts | amcc3 |
| amccharts | amcc4 |
| amccharts | amcc5 |
| amccharts | amcc_ihoh |
| amccharts | choosemenu |
| amccharts | core_tot |
| amccharts | fillpu |
| amccharts | showeditmsg |
| amcc_ihoh | aadd |
| amcc_ihoh | amult |
| amcc_ihoh | clnupdest |
| amcc_ihoh | closepage |
| amcc_ihoh | get_cost_tot |
| amcc_ihoh | get_totals |
| amcc_ihoh | larray |
| amcc_ihoh | setdest |
| amcc_ihoh | years |
| anal_details | choosemenu |
| anal_details | disp_capital |
| anal_details | disp_contract |
| anal_details | disp_expense |
| anal_details | disp_external |
| anal_details | disp_internal |
| anal_details | disp_wkyrs |
| anal_details | escape |
| anal_details | fillpu |
| anal_details | showeditmsg |
| anonzero | get_array |
| anonzero | nonzero |
| assorted | choosemenu |
| assorted | copydata |
| assorted | delete_lab |
| assorted | del_allbut |
| assorted | docheck |
| assorted | doload |
| assorted | doreindex |
| assorted | doviewtext |
| assorted | escape |
| assorted | fillpu |
| assorted | remove_unlinked |
| assorted | toggle_list |
| avgload | aadd |

| Calling Routine | Called Routine |
|---|---|
| avgload | avdiv |
| avgload | avmult |
| avgload | cent |
| avgload | closefile |
| avgload | get_array |
| avgload | openfile |
| avgload | put_array |
| avgload | warnem |
| a_handler | help |
| balance1 | asub |
| balance1 | bal_part1 |
| balance1 | bal_part2 |
| balance1 | cent |
| balance1 | clnupdest |
| balance1 | closefile |
| balance1 | closepage |
| balance1 | closewindow |
| balance1 | larray |
| balance1 | openfile |
| balance1 | openwindow |
| balance1 | setdest |
| balance2 | asub |
| balance2 | bal_part1 |
| balance2 | bal_part2 |
| balance2 | cent |
| balance2 | clnupdest |
| balance2 | closefile |
| balance2 | closepage |
| balance2 | closewindow |
| balance2 | larray |
| balance2 | openfile |
| balance2 | openwindow |
| balance2 | setdest |
| balance3 | asub |
| balance3 | bal_part1 |
| balance3 | bal_part2 |
| balance3 | cent |
| balance3 | clnupdest |
| balance3 | closefile |
| balance3 | closepage |
| balance3 | closewindow |
| balance3 | larray |
| balance3 | openfile |
| balance3 | openwindow |
| balance3 | setdest |
| balances | balance1 |

| Calling Routine | Called Routine |
|---|---|
| balances | balance2 |
| balances | balance3 |
| balances | choosemenu |
| balances | fillpu |
| balances | showeditmsg |
| bal_part1 | compwky |
| bal_part1 | get_wkyrs |
| bal_part1 | larray |
| bal_part1 | load_foe_factors |
| bal_part1 | years |
| bal_part2 | aadd |
| bal_part2 | align |
| bal_part2 | compcpb |
| bal_part2 | get_array |
| bal_part2 | larray |
| bal_part2 | load_foe_factors |
| bal_part2 | years |
| baseline | choosemenu |
| baseline | escape |
| baseline | fillpu |
| baseline | showeditmsg |
| baseline | view_center |
| baseline | view_rates |
| baseline | view_totals |
| bpm (main) | assorted |
| bpm (main) | baseline |
| bpm (main) | blimempak |
| bpm (main) | bliovlclr |
| bpm (main) | cent |
| bpm (main) | checklevel |
| bpm (main) | choose |
| bpm (main) | closewindow |
| bpm (main) | data_entry |
| bpm (main) | defineallfiles |
| bpm (main) | dopack |
| bpm (main) | dosvers |
| bpm (main) | files |
| bpm (main) | getthese |
| bpm (main) | handles |
| bpm (main) | load_main_factors |
| bpm (main) | load_orgs |
| bpm (main) | openwindow |
| bpm (main) | optselect |
| bpm (main) | pad |
| bpm (main) | showdemomsg |
| bpm (main) | showeditmsg |

| Calling Routine | Called Routine |
|---|---|
| bpm (main) | sys_edit |
| bpm (main) | upgrade |
| bpm (main) | warnem |
| bpm (main) | whatif |
| browse | afields |
| browse | dbedit |
| browse | get_pic |
| browse | indexkey |
| browse | lastrec |
| checklevel | warnem |
| checkone | closefile |
| checkone | openfile |
| chkidx | doindex |
| chkidx | getdatetime |
| chkidx | indexkey |
| choose | achoice |
| choose | alength |
| choose | amaxlen |
| choose | cent |
| choose | closewindow |
| choose | openwindow |
| choose | showeditmsg |
| choosemenu | achoice |
| choosemenu | amaxlen |
| choosemenu | blimempak |
| choosemenu | bliovlclr |
| choosemenu | cent |
| choosemenu | closewindow |
| choosemenu | openwindow |
| choosemenu | pad |
| choosemenu | showeditmsg |
| closewindow | restscreen |
| compare_wif | closewindow |
| compare_wif | openwindow |
| compare_wif | showeditmsg |
| compare_wif | wiforg |
| compass | amult |
| compose_line | aadd |
| compose_line | get_array |
| copydata | cent |
| copydata | closewindow |
| copydata | copyone |
| copydata | getthese |
| copydata | ispath |
| copydata | openwindow |
| copydata | optselect |

| Calling Routine | Called Routine |
|---|---|
| copydata | pad |
| copydata | sel_lab_foe |
| copydata | warnem |
| copyone | cent |
| copyone | closefile |
| copyone | openfile |
| corefilt | cent |
| corefilt | closewindow |
| corefilt | okapn |
| corefilt | okfoe |
| corefilt | oklab |
| corefilt | openwindow |
| corefilt | popq |
| corefilt | showeditmsg |
| corefilt | tlbr |
| core_dollars | align |
| core_dollars | cent |
| core_dollars | clnupdest |
| core_dollars | closefile |
| core_dollars | closepage |
| core_dollars | closewindow |
| core_dollars | corefilt |
| core_dollars | indexord |
| core_dollars | openfile |
| core_dollars | openwindow |
| core_dollars | pad |
| core_dollars | setdest |
| core_qc | cent |
| core_qc | clnupdest |
| core_qc | closefile |
| core_qc | closepage |
| core_qc | closewindow |
| core_qc | openfile |
| core_qc | openwindow |
| core_qc | setdest |
| core_tot | add_field |
| core_tot | align |
| core_tot | alloc_det |
| core_tot | asub |
| core_tot | cent |
| core_tot | clnupdest |
| core_tot | closefile |
| core_tot | closepage |
| core_tot | closewindow |
| core_tot | ctreport |
| core_tot | dircust |

| Calling Routine | Called Routine |
|---|---|
| core_tot | getthese |
| core_tot | get_cap |
| core_tot | get_totals |
| core_tot | indexord |
| core_tot | openfile |
| core_tot | openwindow |
| core_tot | pad |
| core_tot | setdest |
| ctreport | cent |
| ctreport | closefile |
| ctreport | closepage |
| ctreport | openfile |
| ctreport | pad |
| ctr_toggle | choose |
| ctr_toggle | disp_foe_guts |
| ctr_toggle | pad |
| ctr_toggle | showeditmsg |
| data_entry | choosemenu |
| data_entry | escape |
| data_entry | fillpu |
| data_entry | showeditmsg |
| data_entry | view_capital |
| data_entry | view_corecap |
| data_entry | view_foe_factors |
| data_entry | view_personnel |
| data_entry | view_revenue |
| defineallfiles | addnewfile |
| defineallfiles | wiforg |
| deleteone | cent |
| deleteone | closefile |
| deleteone | openfile |
| delete_lab | cent |
| delete_lab | closewindow |
| delete_lab | deleteone |
| delete_lab | openwindow |
| delete_lab | optselect |
| delete_lab | sel_lab_foe |
| del_allbut | cent |
| del_allbut | closewindow |
| del_allbut | deleteone |
| del_allbut | openwindow |
| del_allbut | optselect |
| del_allbut | sel_lab_foe |
| del_personnel | del_rec |
| del_personnel | optselect |
| del_personnel | whatsnext |

| Calling Routine | Called Routine |
|---|---|
| del_rec | indexkey |
| del_record | del_rec |
| del_record | optselect |
| del_record | whatsnext |
| del_revenue | closefile |
| del_revenue | del_rec |
| del_revenue | del_record |
| del_revenue | openfile |
| del_revenue | optselect |
| del_revenue | whatsnext |
| dirorgcalc | arsum |
| dirorgcalc | arvadd |
| disp_capital | aadd |
| disp_capital | asub |
| disp_capital | closewindow |
| disp_capital | get_totals |
| disp_capital | openwindow |
| disp_capital | pad |
| disp_capital | showeditmsg |
| disp_capital | tlbr |
| disp_capital | wr_arr |
| disp_capital | wr_duls |
| disp_capital | wr_uls |
| disp_capital | wr_years |
| disp_contract | asub |
| disp_contract | closewindow |
| disp_contract | get_totals |
| disp_contract | openwindow |
| disp_contract | pad |
| disp_contract | showeditmsg |
| disp_contract | tlbr |
| disp_contract | wr_arr |
| disp_contract | wr_duls |
| disp_contract | wr_uls |
| disp_contract | wr_years |
| disp_expense | closewindow |
| disp_expense | get_totals |
| disp_expense | openwindow |
| disp_expense | pad |
| disp_expense | showeditmsg |
| disp_expense | tlbr |
| disp_expense | wr_arr |
| disp_expense | wr_duls |
| disp_expense | wr_uls |
| disp_expense | wr_years |
| disp_external | aadd |

| Calling Routine | Called Routine |
|---|---|
| disp_external | closewindow |
| disp_external | get_cost_tot |
| disp_external | get_totals |
| disp_external | openwindow |
| disp_external | pad |
| disp_external | showeditmsg |
| disp_external | tlbr |
| disp_external | wr_arr |
| disp_external | wr_duls |
| disp_external | wr_uls |
| disp_external | wr_years |
| disp_foe | anal_details |
| disp_foe | closefile |
| disp_foe | closewindow |
| disp_foe | disp_foe_guts |
| disp_foe | doit |
| disp_foe | dotoggle |
| disp_foe | fillpmu |
| disp_foe | list_totals |
| disp_foe | openfile |
| disp_foe | openwindow |
| disp_foe | recalc_lab |
| disp_foe | showeditmsg |
| disp_foe | tlbr |
| disp_foe | view_foe_factors |
| disp_foe_guts | aadd |
| disp_foe_guts | asub |
| disp_foe_guts | get_cost_tot |
| disp_foe_guts | get_totals |
| disp_foe_guts | pad |
| disp_foe_guts | wr_arr |
| disp_foe_guts | wr_duls |
| disp_foe_guts | wr_uls |
| disp_foe_guts | wr_years |
| disp_internal | asub |
| disp_internal | closewindow |
| disp_internal | get_totals |
| disp_internal | openwindow |
| disp_internal | pad |
| disp_internal | showeditmsg |
| disp_internal | tlbr |
| disp_internal | wr_arr |
| disp_internal | wr_duls |
| disp_internal | wr_uls |
| disp_internal | wr_years |
| disp_rates | aadd |

| Calling Routine | Called Routine |
|---|---|
| disp_rates | asub |
| disp_rates | avdiv |
| disp_rates | avmult |
| disp_rates | get_cost_tot |
| disp_rates | get_totals |
| disp_rates | wr_arr |
| disp_rates | wr_duls |
| disp_rates | wr_uls |
| disp_rates | wr_years |
| disp_wkyrs | aadd |
| disp_wkyrs | closewindow |
| disp_wkyrs | get_totals |
| disp_wkyrs | openwindow |
| disp_wkyrs | pad |
| disp_wkyrs | showeditmsg |
| disp_wkyrs | tlbr |
| disp_wkyrs | wr_arr |
| disp_wkyrs | wr_duls |
| disp_wkyrs | wr_uls |
| disp_wkyrs | wr_years |
| dobrowse | browse |
| dobrowse | cent |
| dobrowse | closewindow |
| dobrowse | get_set |
| dobrowse | openwindow |
| dobrowse | showeditmsg |
| docheck | cent |
| docheck | checkone |
| docheck | clnupdest |
| docheck | closefile |
| docbeck | closepage |
| docheck | closewindow |
| docheck | openfile |
| docheck | openwindow |
| docheck | optselect |
| docheck | setdest |
| doindex | cent |
| doindex | closewindow |
| doindex | openwindow |
| doit | doskip |
| doit | l_menu |
| doit | restscreen |
| dolicense | cent |
| dolicense | closewindow |
| dolicense | openwindow |
| doload | aadd |

| Calling Routine | Called Routine |
|---|---|
| doload | amult |
| doload | asub |
| doload | avgload |
| doload | cent |
| doload | closefile |
| doload | closewindow |
| doload | genload |
| doload | getthese |
| doload | get_wkyrs |
| doload | ispath |
| doload | openfile |
| doload | openwindow |
| doload | optselect |
| doload | pad |
| doload | sel_lab_foe |
| doload | warnem |
| dopack | cent |
| dopack | closefile |
| dopack | closewindow |
| dopack | openfile |
| dopack | openwindow |
| dopack | optselect |
| dopessimism | aadd |
| dopessimism | alloc_cost |
| dopessimism | asub |
| dopessimism | avdiv |
| dopessimism | closefile |
| dopessimism | closewindow |
| dopessimism | doit |
| dopessimism | fillpmu |
| dopessimism | get_cost_tot |
| dopessimism | get_totals |
| dopessimism | list_pessimism |
| dopessimism | openfile |
| dopessimism | openwindow |
| dopessimism | optselect |
| dopessimism | pess_scan |
| dopessimism | pess_show |
| dopessimism | showeditmsg |
| dopessimism | tlbr |
| dopessimism | wr_arr |
| dopessimism | wr_uls |
| dopessimism | wr_years |
| doproj_org_tda | cent |
| doproj_org_tda | closewindow |
| doproj_org_tda | openwindow |

| Calling Routine | Called Routine |
|---|---|
| doproj_org_tda | optselect |
| doproj_org_tda | proj_org_tda |
| doreindex | cent |
| doreindex | closefile |
| doreindex | closewindow |
| doreindex | openfile |
| doreindex | openwindow |
| doreindex | optselect |
| doskip | if |
| doskip | indexkey |
| dosvers | cdosvers |
| dotoggle | disp_foe_guts |
| doviewtext | asort |
| doviewtext | choose |
| doviewtext | optselect |
| doviewtext | pad |
| doviewtext | scrollfile |
| doviewtext | showeditmsg |
| doviewtext | warnem |
| edit_baseyear | cent |
| edit_baseyear | closefile |
| edit_baseyear | closewindow |
| edit_baseyear | getthese |
| edit_baseyear | openfile |
| edit_baseyear | openwindow |
| edit_foe_factors | addupfactors |
| edit_foe_factors | choose |
| edit_foe_factors | e_factor |
| edit_foe_factors | fillpu |
| edit_foe_factors | warnem |
| edit_main_factors | choose |
| edit_main_factors | e_factor |
| edit_main_factors | fillpu |
| edit_personnel | choose |
| edit_personnel | e_personnel |
| edit_personnel | e_per_item |
| edit_personnel | fillpu |
| edit_personnel | get_wkyrs |
| edit_personnel | showeditmsg |
| edit_personnel | warnem |
| edit_revenue | choose |
| edit_revenue | e_carry |
| edit_revenue | e_revenue |
| edit_revenue | e_rev_item |
| edit_revenue | fillpu |
| edit_revenue | get_array |

| Calling Routine | Called Routine |
|---|---|
| edit_revenue | showeditmsg |
| edit_revenue | view_capmaj |
| edit_revenue | view_internal |
| edit_revenue | view_major |
| edit_revenue | view_products |
| edit_revenue | view_support |
| edit_revenue | warnem |
| est_factor | fillpvp |
| est_factor | getthese |
| est_factor | warnem |
| eval_toggle | choose |
| eval_toggle | optselect |
| eval_toggle | recalc_year |
| eval_toggle | showeditmsg |
| eval_toggle | showrecmsg |
| expenses | choosemenu |
| expenses | fillpu |
| expenses | showeditmsg |
| expenses | source_use |
| expenses | tech_base_ihoh |
| expenses | tot_exp1 |
| expenses | tot_exp2 |
| e_capital | add_rec |
| e_capital | compass |
| e_capital | get_array |
| e_capital | isinfile |
| e_capital | minmax |
| e_capital | okass |
| e_capital | orblank |
| e_capitai | put_array |
| e_capital | showeditmsg |
| e_capital | wr_duls |
| e_capital | wr_uls |
| e_capital | wr_years |
| e_capmaj | add_rec |
| e_capmaj | get_array |
| e_capmaj | minmax |
| e_capmaj | okass |
| e_capmaj | put_array |
| e_capmaj | showeditmsg |
| e_capmaj | wr_uls |
| e_capmaj | wr_years |
| e_carry | compcpb |
| e_carry | e_rev_item |
| e_corecap | cctot |
| e_corecap | get_cap |

| Calling Routine | Called Routine |
|---|---|
| e_corecap | put_cap |
| e_corecap | showeditmsg |
| e_corecap | warnem |
| e_cpb_ga | avdiv |
| e_cpb_ga | closewindow |
| e_cpb_ga | openwindow |
| e_cpb_ga | showeditmsg |
| e_cpb_ga | tlbr |
| e_cpb_ga | warnem |
| e_cpb_ga | wr_uls |
| e_cpb_ga | wr_years |
| e_cpb_wky | closewindow |
| e_cpb_wky | openwindow |
| e_cpb_wky | showeditmsg |
| e_cpb_wky | tlbr |
| e_cpb_wky | wr_uls |
| e_cpb_wky | wr_years |
| e_ctda | add_rec |
| e_ctda | showeditmsg |
| e_ctda | tot_ctda |
| e_factor | est_factor |
| e_factor | minmax |
| e_factor | optselect |
| e_factor | put_factor |
| e_factor | showeditmsg |
| e_internal | add_rec |
| e_internal | get_array |
| e_internal | isinfile |
| e_internal | minmax |
| e_internal | okintlab |
| e_internal | orblank |
| e_internal | put_array |
| e_internal | showeditmsg |
| e_internal | wr_uls |
| e_internal | wr_years |
| e_major | add_rec |
| e_major | get_array |
| e_major | minmax |
| e_major | okgrp |
| e_major | oksrc |
| e_major | put_array |
| e_major | showeditmsg |
| e_major | wr_uls |
| e_major | wr_years |
| e_off | add_rec |
| e_off | oklab |

| Calling Routine | Called Routine |
|---|---|
| e_off | showeditmsg |
| e_opt_pers | arvadd |
| e_opt_pers | opt_calc |
| e_opt_pers | opt_disp |
| e_opt_pers | reloaddata |
| e_opt_pers | showeditmsg |
| e_org | add_rec |
| e_org | okontda |
| e_org | okorg |
| e_org | showeditmsg |
| e_personnel | add_rec |
| e_personnel | align |
| e_personnel | blank_if_cont |
| e_personnel | compwky |
| e_personnel | findkey |
| e_personnel | get_wkyrs |
| e_personnel | isinfile |
| e_personnel | okpers |
| e_personnel | okpos |
| e_personnel | okps |
| e_personnel | orblank |
| e_personnel | set_salary |
| e_personnel | showeditmsg |
| e_personnel | wr_arr |
| e_personnel | wr_duls |
| e_personnel | wr_uls |
| e_personnel | wr_years |
| e_per_item | add_rec |
| e_per_item | compwky |
| e_per_item | del_rec |
| e_per_item | minmax |
| e_per_item | nonzero |
| e_per_item | put_array |
| e_per_item | showeditmsg |
| e_pessimism | add_rec |
| e_pessimism | amult |
| e_pessimism | compchg |
| e_pessimism | get_array |
| e_pessimism | isinfile |
| e_pessimism | okapn |
| e_pessimism | okcat |
| e_pessimism | okfoe |
| e_pessimism | okgrp |
| e_pessimism | oklab |
| e_pessimism | oksrc |
| e_pessimism | popq |

| Calling Routine | Called Routine |
|---|---|
| e_pessimism | put_array |
| e_pessimism | showeditmsg |
| e_pessimism | wr_uls |
| e_pessimism | wr_years |
| e_product | add_rec |
| e_product | showeditmsg |
| e_revenue | add_rec |
| e_revenue | closefile |
| e_revenue | compcpb |
| e_revenue | findkey |
| e_revenue | get_array |
| e_revenue | isinfile |
| e_revenue | okapn |
| e_revenue | okcat |
| e_revenue | okgrp |
| e_revenue | oksrc |
| e_revenue | openfile |
| e_revenue | optselect |
| e_revenue | orblank |
| e_revenue | showeditmsg |
| e_revenue | wr_arr |
| e_revenue | wr_duls |
| e_revenue | wr_uls |
| e_revenue | wr_years |
| e_revtype | add_rec |
| e_revtype | okapn |
| e_revtype | okcat |
| e_revtype | showeditmsg |
| e_rev_item | compcpb |
| e_rev_item | minmax |
| e_rev_item | put_array |
| e_rev_item | showeditmsg |
| e_skill | add_rec |
| e_skill | okskl |
| e_skill | showeditmsg |
| e_source | add_rec |
| e_source | okgrp |
| e_source | showeditmsg |
| e_support | add_rec |
| e_support | get_array |
| e_support | minmax |
| e_support | oksrc |
| e_support | put_array |
| e_support | showeditmsg |
| e_support | wr_uls |
| e_support | wr_years |

| Calling Routine | Called Routine |
|---|---|
| e_tda_org | showeditmsg |
| e_tda_org | show_overall |
| e_tda_org | tda_tot |
| e_tda_tgt | fillpvp |
| e_tda_tgt | getthese |
| e_tda_what | recalc_year |
| e_tda_what | showeditmsg |
| e_tda_what | tda_eval_comp |
| fillfld | ltrim |
| findkey | indexkey |
| findkey | warnem |
| gasubsidy | ardist |
| gasubsidy | ardiv |
| gasubsidy | arvadd |
| genload | cent |
| genload | closefile |
| genload | openfile |
| genload | warnem |
| genmsgwindow | askok |
| genmsgwindow | cent |
| genmsgwindow | closewindow |
| genmsgwindow | openwindow |
| getfiltcond | cent |
| getfiltcond | closewindow |
| getfiltcond | okoper |
| getfiltcond | openwindow |
| getthese | amaxlen |
| getthese | cent |
| getthese | closewindow |
| getthese | get_set |
| getthese | openwindow |
| getthese | pad |
| get_cost_tot | aadd |
| get_cost_tot | get_totals |
| get_factor | get_array |
| get_factor | openfile |
| get_pic | ltrim |
| get_totals | amult |
| get_totals | closefile |
| get_totals | get_array |
| get_totals | openfile |
| get_wkyrs | get_array |
| go_corecap | choose |
| go_corecap | showeditmsg |
| go_general | cent |
| go_general | closewindow |

| Calling Routine | Called Routine |
|---|---|
| go_general | dbedit |
| go_general | openwindow |
| go_general | showeditmsg |
| go_general | tlbr |
| go_general | warnem |
| go_spec | choose |
| go_spec | indexkey |
| go_spec | showeditmsg |
| go_spec | warnem |
| help | cent |
| help | closefile |
| help | closewindow |
| help | get_set |
| help | openfile |
| help | openwindow |
| help | pad |
| incr_baseyear | cent |
| incr_baseyear | closefile |
| incr_baseyear | closewindow |
| incr_baseyear | openfile |
| incr_baseyear | openwindow |
| incr_baseyear | optselect |
| incr_baseyear | warnem |
| initscreen | readfwd |
| intl_diag | aadd |
| intl_diag | clnupdest |
| intl_diag | closefile |
| intl_diag | closepage |
| intl_diag | get_array |
| intl_diag | larray |
| intl_diag | l_int |
| intl_diag | openfile |
| intl_diag | pad |
| intl_diag | setdest |
| intl_diag | years |
| isinfile | choose |
| isinfile | closefile |
| isinfile | go_general |
| isinfile | indexkey |
| isinfile | openfile |
| isinfile | showeditmsg |
| isinfile | warnem |
| ispath | pad |
| ispath | warnem |
| larray | amult |
| limit_overtime | getthese |

| Calling Routine | Called Routine |
|---|---|
| listcapstr | aadd |
| listcapstr | get_array |
| list_avg_fact | aadd |
| list_avg_fact | amult |
| list_avg_fact | avdiv |
| list_avg_fact | avmult |
| list_avg_fact | cent |
| list_avg_fact | clnupdest |
| list_avg_fact | closefile |
| list_avg_fact | closepage |
| list_avg_fact | closewindow |
| list_avg_fact | get_wkyrs |
| list_avg_fact | larray |
| list_avg_fact | load_foe_factors |
| list_avg_fact | openfile |
| list_avg_fact | openwindow |
| list_avg_fact | optselect |
| list_avg_fact | sel_lab_foe |
| list_avg_fact | setdest |
| list_avg_fact | years |
| list_cap1 | fillnf |
| list_cap1 | okass |
| list_cap1 | okfoe |
| list_cap1 | oklab |
| list_cap1 | user_defined |
| list_capital | choosemenu |
| list_capital | doviewtext |
| list_capital | fillpu |
| list_capital | list_cap1 |
| list_capital | showeditmsg |
| list_capital | tot_cap1 |
| list_capital | win_print |
| list_center | amccharts |
| list_center | balances |
| list_center | choosemenu |
| list_center | doviewtext |
| list_center | expenses |
| list_center | fillpu |
| list_center | intl_diag |
| list_center | list_tot1 |
| list_center | org_nets |
| list_center | pad |
| list_center | showeditmsg |
| list_center | tot_cap1 |
| list_center | tot_ext1 |
| list_center | tot_int1 |

| Calling Routine | Called Routine |
|---|---|
| list_center | tot_pers1 |
| list_center | tot_rev1 |
| list_center | tot_rev2 |
| list_center | ts_amounts |
| list_center | win_print |
| list_core1 | fillnf |
| list_core1 | okapn |
| list_core1 | okfoe |
| list_core1 | oklab |
| list_core1 | user_defined |
| list_corecap | choosemenu |
| list_corecap | core_dollars |
| list_corecap | core_qc |
| list_corecap | doviewtext |
| list_corecap | fillpu |
| list_corecap | list_core1 |
| list_corecap | showeditmsg |
| list_corecap | win_print |
| list_ctda | fillnf |
| list_ctda | okfoe |
| list_ctda | oklab |
| list_ctda | user_defined |
| list_engine | cent |
| list_engine | clnupdest |
| list_engine | closefile |
| list_engine | closepage |
| list_engine | closewindow |
| list_engine | indexord |
| list_engine | openfile |
| list_engine | openwindow |
| list_engine | setdest |
| list_engine | time |
| list_ext1 | closefile |
| list_ext1 | dircust |
| list_ext1 | fillnf |
| list_ext1 | okapn |
| list_ext1 | okass |
| list_ext1 | okcat |
| list_ext1 | okdc |
| list_ext1 | okext |
| list_ext1 | okfoe |
| list_ext1 | okgrp |
| list_ext1 | oklab |
| list_ext1 | oksrc |
| list_ext1 | openfile |
| list_ext1 | user_defined |

| Calling Routine | Called Routine |
|---|---|
| list_fac1 | fillnf |
| list_fac1 | okfact |
| list_fac1 | okfoe |
| list_fac1 | oklab |
| list_fac1 | user_defined |
| list_factors | choosemenu |
| list_factors | doviewtext |
| list_factors | fillpu |
| list_factors | list_avg_fact |
| list_factors | list_fac1 |
| list_factors | showeditmsg |
| list_factors | win_print |
| list_int1 | closefile |
| list_int1 | dircust |
| list_int1 | fillnf |
| list_int1 | okapn |
| list_int1 | okcat |
| list_int1 | okdc |
| list_int1 | okfoe |
| list_int1 | okgrp |
| list_int1 | oklab |
| list_int1 | oksrc |
| list_int1 | openfile |
| list_int1 | user_defined |
| list_off | fillnf |
| list_off | oklab |
| list_off | user_defined |
| list_orgs | fillnf |
| list_orgs | okfoe |
| list_orgs | oklab |
| list_orgs | okorg |
| list_orgs | okyn |
| list_orgs | user_defined |
| list_pers1 | fillnf |
| list_pers1 | isinfile |
| list_pers1 | okfoe |
| list_pers1 | oklab |
| list_pers1 | okpers |
| list_pers1 | okpos |
| list_pers1 | okps |
| list_pers1 | okskl |
| list_pers1 | okwky |
| list_pers1 | user_defined |
| list_personnel | choosemenu |
| list_personnel | doviewtext |
| list_personnel | fillpu |

| Calling Routine | Called Routine |
|---|---|
| list_personnel | list_pers1 |
| list_personnel | showeditmsg |
| list_personnel | tot_pers1 |
| list_personnel | win_print |
| list_pess1 | aadd |
| list_pess1 | asub |
| list_pess1 | avmult |
| list_pess1 | clnupdest |
| list_pess1 | closepage |
| list_pess1 | larray |
| list_pess1 | pad |
| list_pess1 | setdest |
| list_pess1 | years |
| list_pessimism | choosemenu |
| list_pessimism | doviewtext |
| list_pessimism | fillpu |
| list_pessimism | list_pess1 |
| list_pessimism | list_pess_rev |
| list_pessimism | showeditmsg |
| list_pessimism | tot_pess_rev |
| list_pessimism | win_print |
| list_pess_rev | fillnf |
| list_pess_rev | okapn |
| list_pess_rev | okcat |
| list_pess_rev | okfoe |
| list_pess_rev | okgrp |
| list_pess_rev | oklab |
| list_pess_rev | oksrc |
| list_pess_rev | user_defined |
| list_prod1 | closefile |
| list_prod1 | dircust |
| list_prod1 | fillnf |
| list_prod1 | okapn |
| list_prod1 | okcat |
| list_prod1 | okdc |
| list_prod1 | okfoe |
| list_prod1 | okgrp |
| list_prod1 | oklab |
| list_prod1 | oksrc |
| list_prod1 | openfile |
| list_prod1 | user_defined |
| list_rates | choosemenu |
| list_rates | doviewtext |
| list_rates | fillpu |
| list_rates | showeditmsg |
| list_rates | win_print |

| Calling Routine | Called Routine |
|---|---|
| list_rev1 | dircust |
| list_rev1 | fillnf |
| list_rev1 | okapn |
| list_rev1 | okcat |
| list_rev1 | okdc |
| list_rev1 | okfoe |
| list_rev1 | okgrp |
| list_rev1 | oklab |
| list_rev1 | oksrc |
| list_rev1 | user_defined |
| list_revenue | choosemenu |
| list_revenue | doviewtext |
| list_revenue | fillpu |
| list_revenue | list_ext1 |
| list_revenue | list_int1 |
| list_revenue | list_prod1 |
| list_revenue | list_rev1 |
| list_revenue | showeditmsg |
| list_revenue | tot_carry |
| list_revenue | tot_ext1 |
| list_revenue | tot_int1 |
| list_revenue | tot_netrev |
| list_revenue | tot_rev1 |
| list_revenue | tot_rev2 |
| list_revenue | win_print |
| list_revtypes | fillnf |
| list_revtypes | okapn |
| list_revtypes | okcat |
| list_revtypes | user_defined |
| list_skills | fillnf |
| list_skills | isinfile |
| list_skills | okskl |
| list_skills | user_defined |
| list_sources | fillnf |
| list_sources | okgrp |
| list_sources | oksrc |
| list_sources | user_defined |
| list_tda1 | clnupdest |
| list_tda1 | closepage |
| list_tda1 | openfile |
| list_tda1 | setdest |
| list_tda1 | wiforg |
| list_tda2 | clnupdest |
| list_tda2 | closepage |
| list_tda2 | one_measure |
| list_tda2 | setdest |

| Calling Routine | Called Routine |
|---|---|
| list_tda3 | clnupdest |
| list_tda3 | closepage |
| list_tda3 | openfile |
| list_tda3 | setdest |
| list_tda3 | wiforg |
| list_tda4 | clnupdest |
| list_tda4 | closepage |
| list_tda4 | org_measure |
| list_tda4 | setdest |
| list_tda5 | clnupdest |
| list_tda5 | closepage |
| list_tda5 | openfile |
| list_tda5 | setdest |
| list_tda5 | wiforg |
| list_tda_org | choosemenu |
| list_tda_org | doviewtext |
| list_tda_org | fillpu |
| list_tda_org | list_tda4 |
| list_tda_org | list_wif1 |
| list_tda_org | showeditmsg |
| list_tda_org | win_print |
| list_tda_wif | choosemenu |
| list_tda_wif | doviewtext |
| list_tda_wif | fillpu |
| list_tda_wif | list_tda1 |
| list_tda_wif | list_tda2 |
| list_tda_wif | list_tda3 |
| list_tda_wif | list_tda5 |
| list_tda_wif | list_wif1 |
| list_tda_wif | showeditmsg |
| list_tda_wif | win_print |
| list_tot1 | cent |
| list_tot1 | clnupdest |
| list_tot1 | closepage |
| list_tot1 | closewindow |
| list_tot1 | l_cap |
| list_tot1 | l_exp |
| list_tot1 | l_ext |
| list_tot1 | l_int |
| list_tot1 | l_main |
| list_tot1 | l_supt |
| list_tot1 | l_wkyrs |
| list_tot1 | openwindow |
| list_tot1 | pad |
| list_tot1 | setdest |
| list_totals | choosemenu |

| Calling Routine | Called Routine |
|---|---|
| list_totals | doviewtext |
| list_totals | fillpu |
| list_totals | intl_diag |
| list_totals | list_tot1 |
| list_totals | showeditmsg |
| list_totals | tot_cap1 |
| list_totals | tot_ext1 |
| list_totals | tot_int1 |
| list_totals | tot_pers1 |
| list_totals | tot_rev1 |
| list_totals | tot_rev2 |
| list_totals | win_print |
| list_wif1 | closefile |
| list_wif1 | fillnf |
| list_wif1 | okfoe |
| list_wif1 | oklab |
| list_wif1 | openfile |
| list_wif1 | user_defined |
| loadrevs | arsum |
| loadrevs | arvadd |
| loadrevs | pad |
| load_foe_factors | closefile |
| load_foe_factors | get_factor |
| load_foe_factors | openfile |
| load_foe_factors | pad |
| load_main_factors | amult |
| load_main_factors | closefile |
| load_main_factors | get_factor |
| load_main_factors | openfile |
| load_orgs | closefile |
| load_orgs | findkey |
| load_orgs | openfile |
| l_cap | aadd |
| l_cap | asub |
| l_cap | get_totals |
| l_cap | larray |
| l_cap | years |
| l_exp | get_totals |
| l_exp | larray |
| l_exp | years |
| l_ext | aadd |
| l_ext | amult |
| l_ext | get_cost_tot |
| l_ext | get_totals |
| l_ext | larray |
| l_ext | years |

| Calling Routine | Called Routine |
|---|---|
| l_int | asub |
| l_int | get_totals |
| l_int | larray |
| l_int | years |
| l_main | aadd |
| l_main | amult |
| l_main | asub |
| l_main | get_cost_tot |
| l_main | get_totals |
| l_main | larray |
| l_main | pad |
| l_main | years |
| l_menu | pad |
| l_supt | asub |
| l_supt | get_totals |
| l_supt | larray |
| l_supt | years |
| l_wkyrs | aadd |
| l_wkyrs | get_totals |
| l_wkyrs | larray |
| l_wkyrs | years |
| move_personnel | fillpvp |
| move_personnel | findkey |
| move_personnel | getthese |
| move_personnel | isinfile |
| move_personnel | oklab |
| move_personnel | whatsnext |
| move_revenue | closefile |
| move_revenue | fillpvp |
| move_revenue | findkey |
| move_revenue | getthese |
| move_revenue | isinfile |
| move_revenue | oklab |
| move_revenue | openfile |
| move_revenue | whatsnext |
| net_carry | aadd |
| net_carry | asub |
| net_carry | get_array |
| net_rev | aadd |
| net_rev | asub |
| net_rev | get_array |
| net_revenue | aadd |
| net_revenue | net_rev |
| nofunction | warnem |
| norec | warnem |
| okapn | choose |

| Calling Routine | Called Routine |
|---|---|
| okapn | showeditmsg |
| okass | choose |
| okass | showeditmsg |
| okcat | choose |
| okcat | showeditmsg |
| okdc | choose |
| okdc | showeditmsg |
| okext | choose |
| okext | showeditmsg |
| okfact | choose |
| okfact | showeditmsg |
| okfoe | choose |
| okfoe | showeditmsg |
| okgrp | choose |
| okgrp | showeditmsg |
| okintlab | choose |
| okintlab | showeditmsg |
| oklab | choose |
| oklab | showeditmsg |
| okontda | warnem |
| okoper | choose |
| okoper | showeditmsg |
| okorg | choose |
| okorg | showeditmsg |
| okpers | choose |
| okpers | showeditmsg |
| okpos | choose |
| okpos | showeditmsg |
| okps | choose |
| okps | showeditmsg |
| okskl | choose |
| okskl | showeditmsg |
| oksrc | choose |
| oksrc | closefile |
| oksrc | openfile |
| oksrc | pad |
| oksrc | showeditmsg |
| oksrc | warnem |
| okwky | choose |
| okwky | showeditmsg |
| okyn | choose |
| okyn | showeditmsg |
| one_measure | pad |
| openfile | findkey |
| openfile | getfileid |
| openwindow | shadowwin |

| Calling Routine | Called Routine |
|---|---|
| optselect | cent |
| optselect | closewindow |
| optselect | openwindow |
| opt_calc | ardist |
| opt_calc | ardiv |
| opt_calc | arneg |
| opt_calc | arsum |
| opt_calc | arvadd |
| opt_calc | arvsub |
| opt_calc | dirorgcalc |
| opt_calc | e_opt_pers |
| opt_calc | gasubsidy |
| opt_calc | oneorgcalc |
| opt_calc | warnem |
| opt_disp | pad |
| opt_fact | choosemenu |
| opt_fact | fillpu |
| opt_fact | opt_calc |
| opt_fact | opt_fact1 |
| opt_fact | opt_fact2 |
| opt_fact | reloaddata |
| opt_fact | showeditmsg |
| opt_fact1 | closewindow |
| opt_fact1 | openwindow |
| opt_fact1 | showeditmsg |
| opt_fact1 | tlbr |
| opt_fact2 | closewindow |
| opt_fact2 | openwindow |
| opt_fact2 | showeditmsg |
| opt_fact2 | tlbr |
| opt_list | choosemenu |
| opt_list | doviewtext |
| opt_list | fillpu |
| opt_list | list_wif1 |
| opt_list | opt_list1 |
| opt_list | opt_list2 |
| opt_list | opt_list3 |
| opt_list | showeditmsg |
| opt_list | win_print |
| opt_list1 | clnupdest |
| opt_list1 | closepage |
| opt_list1 | setdest |
| opt_list2 | clnupdest |
| opt_list2 | closepage |
| opt_list2 | setdest |
| opt_list3 | clnupdest |

| Calling Routine | Called Routine |
|---|---|
| opt_list3 | closepage |
| opt_list3 | setdest |
| opt_personnel | cent |
| opt_personnel | closefile |
| opt_personnel | closewindow |
| opt_personnel | doit |
| opt_personnel | e_opt_pers |
| opt_personnel | fillpmu |
| opt_personnel | go_general |
| opt_personnel | openfile |
| opt_personnel | openwindow |
| opt_personnel | opt_fact |
| opt_personnel | opt_list |
| opt_personnel | opt_save |
| opt_personnel | opt_view |
| opt_personnel | pcttoggle |
| opt_personnel | recalc_tda |
| opt_personnel | showeditmsg |
| opt_personnel | tlbr |
| opt_save | cent |
| opt_save | closewindow |
| opt_save | openwindow |
| opt_save | optselect |
| opt_save | recalc_year |
| opt_view | choosemenu |
| opt_view | fillpu |
| opt_view | opt_view1 |
| opt_view | opt_view2 |
| opt_view | opt_view3 |
| opt_view | showeditmsg |
| opt_view1 | choose |
| opt_view2 | choose |
| opt_view3 | choose |
| org_measure | pad |
| org_measure | wiforg |
| org_nets | aadd |
| org_nets | asub |
| org_nets | cent |
| org_nets | clnupdest |
| org_nets | closefile |
| org_nets | closepage |
| org_nets | closewindow |
| org_nets | get_totals |
| org_nets | larray |
| org_nets | openfile |
| org_nets | openwindow |

| Calling Routine | Called Routine |
|---|---|
| org_nets | pad |
| org_nets | setdest |
| org_nets | years |
| pessfilt | optselect |
| pessfilt | sel_lab_foe |
| pess_adj | avmult |
| pess_adj | get_array |
| pess_adj | put_array |
| pess_adj_exp | get_array |
| pess_adj_exp | put_array |
| pess_scan | aadd |
| pess_scan | aaddf |
| pess_scan | amult |
| pess_scan | asub |
| pess_scan | avmult |
| pess_scan | cent |
| pess_scan | closewindow |
| pess_scan | get_array |
| pess_scan | openwindow |
| pess_scan | optselect |
| pess_scan | pess_adj |
| pess_scan | pess_adj_exp |
| pess_scan | put_array |
| pess_show | aadd |
| pess_show | asub |
| pess_show | avmult |
| pess_show | wr_arr |
| pess_show | wr_uls |
| post_repl | compass |
| post_repl | get_array |
| post_repl | minmax |
| post_repl | optselect |
| post_repl | put_array |
| post_totals | amult |
| post_totals | closefile |
| post_totals | minmax |
| post_totals | openfile |
| post_totals | pad |
| post_totals | put_array |
| post_totals | put_totals |
| project_tda | cent |
| project_tda | closewindow |
| project_tda | openfile |
| project_tda | openwindow |
| project_tda | optselect |
| project_tda | proj_org_tda |

| Calling Routine | Called Routine |
|---|---|
| project_tda | recalc_year |
| project_tda | wiforg |
| proj_org_tda | recalc_yr |
| proj_org_tda | tda_tot_comp |
| proj_org_tda | warnem |
| proj_org_tda | wiforg |
| put_cap | add_rec |
| put_cap | del_rec |
| put_factor | add_rec |
| put_factor | closefile |
| put_factor | del_rec |
| put_factor | nonzero |
| put_factor | openfile |
| put_factor | pad |
| put_factor | put_array |
| put_totals | amult |
| put_totals | minmax |
| put_totals | nonzero |
| put_totals | put_array |
| readlinebkwd | readbkwd |
| readlinefwd | readfwd |
| readscrbkwd | readlinebkwd |
| readscrfwd | readlinefwd |
| recalc_all | closefile |
| recalc_all | disp_foe_guts |
| recalc_all | openfile |
| recalc_all | optselect |
| recalc_all | recomp_center |
| recalc_all | recomp_lab |
| recalc_lab | disp_foe_guts |
| recalc_lab | optselect |
| recalc_lab | recomp_lab |
| recalc_tda | aadd |
| recalc_tda | aaddf |
| recalc_tda | amult |
| recalc_tda | avdiv |
| recalc_tda | avmult |
| recalc_tda | blimempak |
| recalc_tda | bliovlclr |
| recalc_tda | cent |
| recalc_tda | closefile |
| recalc_tda | closewindow |
| recalc_tda | get_array |
| recalc_tda | get_cost_tot |
| recalc_tda | get_wkyrs |
| recalc_tda | load_foe_factors |

| Calling Routine | Called Routine |
|---|---|
| recalc_tda | net_rev |
| recalc_tda | openfile |
| recalc_tda | openwindow |
| recalc_tda | optselect |
| recalc_tda | recalc_year |
| recalc_tda | rerecalc_tda |
| recalc_year | cent |
| recalc_year | closewindow |
| recalc_year | openwindow |
| recalc_year | recalc_yr |
| recalc_year | tda_tot_comp |
| recalc_yr | tda_eval_comp |
| recalc_yr | tda_tot_comp |
| recomp_center | aaddf |
| recomp_center | cent |
| recomp_center | closefile |
| recomp_center | closewindow |
| recomp_center | openfile |
| recomp_center | openwindow |
| recomp_center | post_totals |
| recomp_center | rem_ts_cost |
| recomp_foe | aadd |
| recomp_foe | aaddf |
| recomp_foe | amult |
| recomp_foe | asub |
| recomp_foe | avdiv |
| recomp_foe | compcpb |
| recomp_foe | compwky |
| recomp_foe | get_array |
| recomp_foe | get_wkyrs |
| recomp_foe | load_foe_factors |
| recomp_foe | minmax |
| recomp_foe | put_factor |
| recomp_foe | put_totals |
| recomp_lab | aaddf |
| recomp_lab | asub |
| recomp_lab | cent |
| recomp_lab | closefile |
| recomp_lab | closewindow |
| recomp_lab | get_totals |
| recomp_lab | openfile |
| recomp_lab | openwindow |
| recomp_lab | post_totals |
| recomp_lab | put_totals |
| recomp_lab | recomp_foe |
| reloaddata | arsum |

| Calling Routine | Called Routine |
|---|---|
| reloaddata | closefile |
| reloaddata | findkey |
| reloaddata | get_cost_tot |
| reloaddata | loadrevs |
| reloaddata | openfile |
| removeone | cent |
| removeone | closefile |
| removeone | openfile |
| remove_empty | anonzero |
| remove_empty | cent |
| remove_empty | closefile |
| remove_empty | closewindow |
| remove_empty | openfile |
| remove_empty | openwindow |
| remove_empty | optselect |
| remove_empty | removeone |
| remove_unlinked | cent |
| remove_unlinked | closefile |
| remove_unlinked | closewindow |
| remove_unlinked | openfile |
| remove_unlinked | openwindow |
| remove_unlinked | optselect |
| remove_unlinked | unlinked |
| rem_ts_cost | aadd |
| rem_ts_cost | asub |
| rem_ts_cost | get_totals |
| rem_ts_cost | pad |
| rem_ts_cost | post_totals |
| rerecalc_tda | cent |
| rerecalc_tda | pad |
| retrieve_costs | aadd |
| retrieve_costs | amult |
| retrieve_costs | get_cost_tot |
| retrieve_costs | get_totals |
| retrieve_costs | pad |
| rev_pessimism | cent |
| rev_pessimism | closefile |
| rev_pessimism | closewindow |
| rev_pessimism | del_record |
| rev_pessimism | doit |
| rev_pessimism | dopessimism |
| rev_pessimism | e_pessimism |
| rev_pessimism | fillpmu |
| rev_pessimism | go_general |
| rev_pessimism | norec |
| rev_pessimism | openfile |

| Calling Routine | Called Routine |
|---|---|
| rev_pessimism | openwindow |
| rev_pessimism | pessfilt |
| rev_pessimism | showeditmsg |
| rev_pessimism | tlbr |
| scrollfile | initscreen |
| scrollfile | readlinebkwd |
| scrollfile | readlinefwd |
| scrollfile | readscrbkwd |
| scrollfile | readscrfwd |
| scrollfile | restscreen |
| scrollfile | scrollbkwd |
| scrollfile | scrollfwd |
| scrollfile | writescreen |
| sel_foe | choose |
| sel_lab_foe | choose |
| setdest | getthese |
| setdest | optselect |
| setdest | warnem |
| showdemomsg | genmsgwindow |
| showeditmsg | leftjust |
| showmemory | blimempak |
| showmemory | bliovlclr |
| showmemory | cent |
| showmemory | closewindow |
| showmemory | openwindow |
| show_arr | pad |
| show_overall | recalc_yr |
| source_use | allocadd |
| source_use | alloccomp |
| source_use | allocsu |
| source_use | cent |
| source_use | clnupdest |
| source_use | closefile |
| source_use | closepage |
| source_use | closewindow |
| source_use | compcpb |
| source_use | dircust |
| source_use | fillpvp |
| source_use | getthese |
| source_use | get_array |
| source_use | load_foe_factors |
| source_use | openfile |
| source_use | openwindow |
| source_use | optselect |
| source_use | readjust |
| source_use | retrieve_costs |

| Calling Routine | Called Routine |
|---|---|
| source_use | setdest |
| split_chart | aadd |
| split_chart | aaddf |
| split_chart | getthese |
| split_chart | get_array |
| split_chart | larray |
| split_chart | pad |
| split_chart | years |
| sys_edit | choosemenu |
| sys_edit | edit_baseyear |
| sys_edit | escape |
| sys_edit | fillpu |
| sys_edit | incr_baseyear |
| sys_edit | limit_overtime |
| sys_edit | remove_empty |
| sys_edit | showeditmsg |
| sys_edit | view_ctda |
| sys_edit | view_main_factors |
| sys_edit | view_off |
| sys_edit | view_orgs |
| sys_edit | view_revtypes |
| sys_edit | view_skills |
| sys_edit | view_sources |
| tda_tot | tda_tot_comp |
| tda_tot_comp | wkyrs_adjust |
| tda_whatif | cent |
| tda_whatif | closefile |
| tda_whatif | closewindow |
| tda_whatif | doit |
| tda_whatif | eval_toggle |
| tda_whatif | e_tda_tgt |
| tda_whatif | e_tda_what |
| tda_whatif | fillpmu |
| tda_whatif | go_general |
| tda_whatif | list_tda_wif |
| tda_whatif | norec |
| tda_whatif | openfile |
| tda_whatif | openwindow |
| tda_whatif | project_tda |
| tda_whatif | recalc_tda |
| tda_whatif | showeditmsg |
| tda_whatif | showrecmsg |
| tda_whatif | tlbr |
| tda_whatif | view_tda_org |
| tech_base_ihoh | aadd |
| tech_base_ihoh | allocate_costs |

| Calling Routine | Called Routine |
|---|---|
| tech_base_ihoh | avdiv |
| tech_base_ihoh | cent |
| tech_base_ihoh | clnupdest |
| tech_base_ihoh | closefile |
| tech_base_ihoh | closepage |
| tech_base_ihoh | closewindow |
| tech_base_ihoh | compcpb |
| tech_base_ihoh | get_array |
| tech_base_ihoh | larray |
| tech_base_ihoh | load_foe_factors |
| tech_base_ihoh | openfile |
| tech_base_ihoh | openwindow |
| tech_base_ihoh | retrieve_costs |
| tech_base_ihoh | setdest |
| tech_base_ihoh | years |
| tempupgrade | cent |
| tempupgrade | closewindow |
| tempupgrade | openwindow |
| te_tda_org | achoice |
| te_tda_org | closewindow |
| te_tda_org | openwindow |
| te_tda_org | optselect |
| te_tda_org | recalc_yr |
| te_tda_org | showeditmsg |
| te_tda_org | showrecmsg |
| te_tda_org | show_overall |
| te_tda_org | tda_tot_comp |
| te_tda_org | te_tot |
| te_tda_org | tlbr |
| te_tda_org | wiforg |
| te_tda_org | wkyrs_adjust |
| te_tot | tda_tot_comp |
| tgt_toggle | choose |
| tgt_toggle | optselect |
| tgt_toggle | showeditmsg |
| tgt_toggle | showrecmsg |
| tgt_toggle | show_overall |
| tgt_toggle | tda_tot_comp |
| toggle_list | optselect |
| toggle_list | warnem |
| total_engine | aadd |
| total_engine | aaddf |
| total_engine | cent |
| total_engine | clnupdest |
| total_engine | closefile |
| total_engine | closepage |

| Calling Routine | Called Routine |
|---|---|
| total_engine | closewindow |
| total_engine | indexord |
| total_engine | larray |
| total_engine | nonzero |
| total_engine | openfile |
| total_engine | openwindow |
| total_engine | pad |
| total_engine | setdest |
| total_engine | time |
| total_engine | years |
| tot_cap1 | closefile |
| tot_cap1 | fillnf |
| tot_cap1 | okass |
| tot_cap1 | okfoe |
| tot_cap1 | oklab |
| tot_cap1 | openfile |
| tot_cap1 | user_totals |
| tot_carry | closefile |
| tot_carry | dircust |
| tot_carry | fillnf |
| tot_carry | okapn |
| tot_carry | okcat |
| tot_carry | okdc |
| tot_carry | okfoe |
| tot_carry | okgrp |
| tot_carry | oklab |
| tot_carry | oksrc |
| tot_carry | openfile |
| tot_carry | user_totals |
| tot_exp1 | aadd |
| tot_exp1 | allocate_costs |
| tot_exp1 | cent |
| tot_exp1 | clnupdest |
| tot_exp1 | closefile |
| tot_exp1 | closepage |
| tot_exp1 | closewindow |
| tot_exp1 | compcpb |
| tot_exp1 | dircust |
| tot_exp1 | get_array |
| tot_exp1 | larray |
| tot_exp1 | load_foe_factors |
| tot_exp1 | openfile |
| tot_exp1 | openwindow |
| tot_exp1 | pad |
| tot_exp1 | retrieve_costs |
| tot_exp1 | setdest |

| Calling Routine | Called Routine |
|---|---|
| tot_exp1 | years |
| tot_exp2 | aadd |
| tot_exp2 | allocate_costs |
| tot_exp2 | cent |
| tot_exp2 | clnupdest |
| tot_exp2 | closefile |
| tot_exp2 | closepage |
| tot_exp2 | closewindow |
| tot_exp2 | compcpb |
| tot_exp2 | get_array |
| tot_exp2 | larray |
| tot_exp2 | load_foe_factors |
| tot_exp2 | openfile |
| tot_exp2 | openwindow |
| tot_exp2 | pad |
| tot_exp2 | retrieve_costs |
| tot_exp2 | setdest |
| tot_exp2 | years |
| tot_ext1 | closefile |
| tot_ext1 | dircust |
| tot_ext1 | fillnf |
| tot_ext1 | okapn |
| tot_ext1 | okass |
| tot_ext1 | okcat |
| tot_ext1 | okdc |
| tot_ext1 | okext |
| tot_ext1 | okfoe |
| tot_ext1 | okgrp |
| tot_ext1 | oklab |
| tot_ext1 | oksrc |
| tot_ext1 | openfile |
| tot_ext1 | user_totals |
| tot_int1 | closefile |
| tot_int1 | dircust |
| tot_int1 | fillnf |
| tot_int1 | okapn |
| tot_int1 | okcat |
| tot_int1 | okdc |
| tot_int1 | okfoe |
| tot_int1 | okgrp |
| tot_int1 | oklab |
| tot_int1 | oksrc |
| tot_int1 | openfile |
| tot_int1 | user_totals |
| tot_netrev | closefile |
| tot_netrev | dircust |

| Calling Routine | Called Routine |
|---|---|
| tot_netrev | fillnf |
| tot_netrev | okapn |
| tot_netrev | okcat |
| tot_netrev | okdc |
| tot_netrev | okfoe |
| tot_netrev | okgrp |
| tot_netrev | oklab |
| tot_netrev | oksrc |
| tot_netrev | openfile |
| tot_netrev | user_totals |
| tot_pers1 | closefile |
| tot_pers1 | fillnf |
| tot_pers1 | isinfile |
| tot_pers1 | okfoe |
| tot_pers1 | oklab |
| tot_pers1 | okpers |
| tot_pers1 | okpos |
| tot_pers1 | okps |
| tot_pers1 | okskl |
| tot_pers1 | okwky |
| tot_pers1 | openfile |
| tot_pers1 | user_totals |
| tot_pess_rev | fillnf |
| tot_pess_rev | okapn |
| tot_pess_rev | okcat |
| tot_pess_rev | okfoe |
| tot_pess_rev | okgrp |
| tot_pess_rev | oklab |
| tot_pess_rev | oksrc |
| tot_pess_rev | user_totals |
| tot_rev1 | closefile |
| tot_rev1 | dircust |
| tot_rev1 | fillnf |
| tot_rev1 | okapn |
| tot_rev1 | okcat |
| tot_rev1 | okdc |
| tot_rev1 | okfoe |
| tot_rev1 | okgrp |
| tot_rev1 | oklab |
| tot_rev1 | oksrc |
| tot_rev1 | openfile |
| tot_rev1 | user_totals |
| tot_rev2 | closefile |
| tot_rev2 | dircust |
| tot_rev2 | fillnf |
| tot_rev2 | okapn |

| Calling Routine | Called Routine |
|---|---|
| tot_rev2 | okcat |
| tot_rev2 | okdc |
| tot_rev2 | okfoe |
| tot_rev2 | okgrp |
| tot_rev2 | oklab |
| tot_rev2 | oksrc |
| tot_rev2 | openfile |
| tot_rev2 | user_totals |
| tsamt | aadd |
| tsamt | amult |
| tsamt | cent |
| tsamt | clnupdest |
| tsamt | closepage |
| tsamt | closewindow |
| tsamt | get_array |
| tsamt | larray |
| tsamt | openwindow |
| tsamt | setdest |
| tsamt | years |
| ts_amounts | choosemenu |
| ts_amounts | fillpu |
| ts_amounts | showeditmsg |
| ts_amounts | tsamt |
| unlinked | closefile |
| unlinked | openfile |
| upgrade | tempupgrade |
| upgrade | upgrone |
| upgrade | warnem |
| upgrone | buildfile |
| upgrone | cent |
| upgrone | closewindow |
| upgrone | openwindow |
| user_defined | anonzero |
| user_defined | cent |
| user_defined | choose |
| user_defined | closewindow |
| user_defined | compose_line |
| user_defined | c_o |
| user_defined | dtos |
| user_defined | getfiltcond |
| user_defined | larray |
| user_defined | list_engine |
| user_defined | loadpsf |
| user_defined | openwindow |
| user_defined | optselect |
| user_defined | pad |

| Calling Routine | Called Routine |
|---|---|
| user_defined | popq |
| user_defined | rem_old_names |
| user_defined | savepsf |
| user_defined | show_arr |
| user_defined | show_line_length |
| user_defined | tlbr |
| user_defined | warnem |
| user_defined | years |
| user_totals | cent |
| user_totals | choose |
| user_totals | closewindow |
| user_totals | getfiltcond |
| user_totals | loadpsf |
| user_totals | openwindow |
| user_totals | optselect |
| user_totals | pad |
| user_totals | popq |
| user_totals | rem_old_names |
| user_totals | savepsf |
| user_totals | show_arr |
| user_totals | tlbr |
| user_totals | total_engine |
| user_totals | warnem |
| view_capital | cent |
| view_capital | closefile |
| view_capital | closewindow |
| view_capital | del_record |
| view_capital | doit |
| view_capital | e_capital |
| view_capital | fillpmu |
| view_capital | go_spec |
| view_capital | list_capital |
| view_capital | norec |
| view_capital | openfile |
| view_capital | openwindow |
| view_capital | post_repl |
| view_capital | sel_foe |
| view_capital | showeditmsg |
| view_capital | tlbr |
| view_capmaj | aaddf |
| view_capmaj | cent |
| view_capmaj | closefile |
| view_capmaj | closewindow |
| view_capmaj | del_record |
| view_capmaj | doit |
| view_capmaj | e_capmaj |

| Calling Routine | Called Routine |
|---|---|
| view_capmaj | fillpmu |
| view_capmaj | go_spec |
| view_capmaj | minmax |
| view_capmaj | norec |
| view_capmaj | openfile |
| view_capmaj | openwindow |
| view_capmaj | put_array |
| view_capmaj | showeditmsg |
| view_capmaj | tlbr |
| view_center | anal_details |
| view_center | closefile |
| view_center | closewindow |
| view_center | ctr_toggle |
| view_center | disp_foe_guts |
| view_center | doit |
| view_center | fillpmu |
| view_center | list_center |
| view_center | openfile |
| view_center | openwindow |
| view_center | recalc_all |
| view_center | showeditmsg |
| view_center | tlbr |
| view_corecap | closefile |
| view_corecap | closewindow |
| view_corecap | doit |
| view_corecap | e_corecap |
| view_corecap | fillpmu |
| view_corecap | go_corecap |
| view_corecap | list_corecap |
| view_corecap | openfile |
| view_corecap | openwindow |
| view_corecap | pad |
| view_corecap | sel_foe |
| view_corecap | showeditmsg |
| view_corecap | tlbr |
| view_corecap | warnem |
| view_ctda | cent |
| view_ctda | closefile |
| view_ctda | closewindow |
| view_ctda | del_record |
| view_ctda | doit |
| view_ctda | e_ctda |
| view_ctda | fillpmu |
| view_ctda | go_general |
| view_ctda | list_ctda |
| view_ctda | norec |

| Calling Routine | Called Routine |
|---|---|
| view_ctda | openfile |
| view_ctda | openwindow |
| view_ctda | showeditmsg |
| view_ctda | tlbr |
| view_foe_factors | addupfactors |
| view_foe_factors | closefile |
| view_foe_factors | closewindow |
| view_foe_factors | doit |
| view_foe_factors | edit_foe_factors |
| view_foe_factors | fillpmu |
| view_foe_factors | list_factors |
| view_foe_factors | load_foe_factors |
| view_foe_factors | openfile |
| view_foe_factors | openwindow |
| view_foe_factors | sel_foe |
| view_foe_factors | showeditmsg |
| view_foe_factors | tlbr |
| view_foe_factors | warnem |
| view_foe_factors | wr_arr |
| view_foe_factors | wr_uls |
| view_foe_factors | wr_years |
| view_internal | aaddf |
| view_internal | cent |
| view_internal | closefile |
| view_internal | closewindow |
| view_internal | del_record |
| view_internal | doit |
| view_internal | e_internal |
| view_internal | fillpmu |
| view_internal | go_spec |
| view_internal | minmax |
| view_internal | norec |
| view_internal | openfile |
| view_internal | openwindow |
| view_internal | put_array |
| view_internal | showeditmsg |
| view_internal | tlbr |
| view_main_factors | closefile |
| view_main_factors | closewindow |
| view_main_factors | doit |
| view_main_factors | edit_main_factors |
| view_main_factors | fillpmu |
| view_main_factors | list_factors |
| view_main_factors | openfile |
| view_main_factors | openwindow |
| view_main_factors | showeditmsg |

| Calling Routine | Called Routine |
|---|---|
| view_main_factors | tlbr |
| view_main_factors | wr_arr |
| view_main_factors | wr_uls |
| view_main_factors | wr_years |
| view_major | aaddf |
| view_major | cent |
| view_major | closefile |
| view_major | closewindow |
| view_major | del_record |
| view_major | doit |
| view_major | e_major |
| view_major | fillpmu |
| view_major | go_spec |
| view_major | minmax |
| view_major | norec |
| view_major | openfile |
| view_major | openwindow |
| view_major | put_array |
| view_major | showeditmsg |
| view_major | tlbr |
| view_off | cent |
| view_off | closefile |
| view_off | closewindow |
| view_off | del_record |
| view_off | doit |
| view_off | e_off |
| view_off | fillpmu |
| view_off | go_general |
| view_off | list_off |
| view_off | norec |
| view_off | openfile |
| view_off | openwindow |
| view_off | showeditmsg |
| view_off | tlbr |
| view_orgs | cent |
| view_orgs | closefile |
| view_orgs | closewindow |
| view_orgs | del_record |
| view_orgs | doit |
| view_orgs | e_org |
| view_orgs | fillpmu |
| view_orgs | go_general |
| view_orgs | list_orgs |
| view_orgs | norec |
| view_orgs | openfile |
| view_orgs | openwindow |

| Calling Routine | Called Routine |
|---|---|
| view_orgs | showeditmsg |
| view_orgs | tlbr |
| view_personnel | cent |
| view_personnel | checklevel |
| view_personnel | closefile |
| view_personnel | closewindow |
| view_personnel | del_personnel |
| view_personnel | doit |
| view_personnel | edit_personnel |
| view_personnel | e_personnel |
| view_personnel | fillpmu |
| view_personnel | go_spec |
| view_personnel | list_personnel |
| view_personnel | load_foe_factors |
| view_personnel | move_personnel |
| view_personnel | norec |
| view_personnel | openfile |
| view_personnel | openwindow |
| view_personnel | sel_foe |
| view_personnel | showeditmsg |
| view_personnel | tlbr |
| view_products | cent |
| view_products | closefile |
| view_products | closewindow |
| view_products | del_record |
| view_products | doit |
| view_products | e_product |
| view_products | fillpmu |
| view_products | go_spec |
| view_products | norec |
| view_products | openfile |
| view_products | openwindow |
| view_products | showeditmsg |
| view_products | tlbr |
| view_rates | accept_rates |
| view_rates | checklevel |
| view_rates | closefile |
| view_rates | closewindow |
| view_rates | disp_rates |
| view_rates | doit |
| view_rates | fillpmu |
| view_rates | genmsgwindow |
| view_rates | list_rates |
| view_rates | openfile |
| view_rates | openwindow |
| view_rates | tlbr |

| Calling Routine | Called Routine |
|---|---|
| view_revenue | cent |
| view_revenue | checklevel |
| view_revenue | closefile |
| view_revenue | closewindow |
| view_revenue | del_revenue |
| view_revenue | doit |
| view_revenue | edit_revenue |
| view_revenue | e_revenue |
| view_revenue | fillpmu |
| view_revenue | go_spec |
| view_revenue | list_revenue |
| view_revenue | load_foe_factors |
| view_revenue | move_revenue |
| view_revenue | norec |
| view_revenue | openfile |
| view_revenue | openwindow |
| view_revenue | sel_foe |
| view_revenue | showeditmsg |
| view_revenue | tlbr |
| view_revtypes | cent |
| view_revtypes | closefile |
| view_revtypes | closewindow |
| view_revtypes | del_record |
| view_revtypes | doit |
| view_revtypes | e_revtype |
| view_revtypes | fillpmu |
| view_revtypes | go_general |
| view_revtypes | list_revtypes |
| view_revtypes | norec |
| view_revtypes | openfile |
| view_revtypes | openwindow |
| view_revtypes | showeditmsg |
| view_revtypes | tlbr |
| view_skills | cent |
| view_skills | closefile |
| view_skills | closewindow |
| view_skills | del_record |
| view_skills | doit |
| view_skills | e_skill |
| view_skills | fillpmu |
| view_skills | go_general |
| view_skills | list_skills |
| view_skills | norec |
| view_skills | openfile |
| view_skills | openwindow |
| view_skills | showeditmsg |

| Calling Routine | Called Routine |
|---|---|
| view_skills | tlbr |
| view_sources | cent |
| view_sources | closefile |
| view_sources | closewindow |
| view_sources | del_record |
| view_sources | doit |
| view_sources | e_source |
| view_sources | fillpmu |
| view_sources | go_general |
| view_sources | list_sources |
| view_sources | norec |
| view_sources | openfile |
| view_sources | openwindow |
| view_sources | showeditmsg |
| view_sources | tlbr |
| view_support | aaddf |
| view_support | cent |
| view_support | closefile |
| view_support | closewindow |
| view_support | del_record |
| view_support | doit |
| view_support | e_support |
| view_support | fillpmu |
| view_support | go_spec |
| view_support | minmax |
| view_support | norec |
| view_support | openfile |
| view_support | openwindow |
| view_support | put_array |
| view_support | showeditmsg |
| view_support | tlbr |
| view_tda_org | closewindow |
| view_tda_org | compare_wif |
| view_tda_org | doit |
| view_tda_org | doproj_org_tda |
| view_tda_org | e_tda_org |
| view_tda_org | fillpmu |
| view_tda_org | go_spec |
| view_tda_org | list_tda_org |
| view_tda_org | norec |
| view_tda_org | openfile |
| view_tda_org | openwindow |
| view_tda_org | recalc_yr |
| view_tda_org | showeditmsg |
| view_tda_org | showrecmsg |
| view_tda_org | te_tda_org |

| Calling Routine | Called Routine |
|---|---|
| view_tda_org | tgt_toggle |
| view_tda_org | tlbr |
| view_tda_org | wiforg |
| view_totals | disp_foe |
| view_totals | load_foe_factors |
| view_totals | sel_foe |
| warnem | cent |
| warnem | closewindow |
| warnem | openwindow |
| whatif | cent |
| whatif | choosemenu |
| whatif | closefile |
| whatif | closewindow |
| whatif | escape |
| whatif | fillpu |
| whatif | genmsgwindow |
| whatif | openfile |
| whatif | openwindow |
| whatif | optselect |
| whatif | opt_personnel |
| whatif | rev_pessimism |
| whatif | showeditmsg |
| whatif | tda_whatif |
| whatsnext | doskip |
| win_print | clnupdest |
| win_print | closepage |
| win_print | setdest |
| writescreen | pad |
| wr_arr | larray |
| wr_years | years |
| xbrowse | lastrec |
| xmemo | optselect |

# CHAPTER 5

## CROSS REFERENCE TO CALLING FUNCTION/PROCEDURES

The following table is a cross references between BPM functions/procedures and the functions and procedures which call them. This is exactly the reverse of Appendix B. This is an important tool for programmers who want to understand or modify the BPM program files. Only routines that are non-standard Clipper are included. This list is created a program and should be more comprehensive and more current than the documented code files.

| Called Routine | Calling Routine |
|---|---|
| aadd | aaddf |
| aadd | addupfactors |
| aadd | allocate_costs |
| aadd | alloc_wky |
| aadd | amcc2 |
| aadd | amcc3 |
| aadd | amcc4 |
| aadd | amcc5 |
| aadd | amcc_ihoh |
| aadd | avgload |
| aadd | bal_part2 |
| aadd | compose_line |
| aadd | disp_capital |
| aadd | disp_external |
| aadd | disp_foe_guts |
| aadd | disp_rates |
| aadd | disp_wkyrs |
| aadd | doload |
| aadd | dopessimism |
| aadd | get_cost_tot |
| aadd | intl_diag |
| aadd | listcapstr |
| aadd | list_avg_fact |
| aadd | list_pess1 |
| aadd | l_cap |
| aadd | l_ext |
| aadd | l_main |
| aadd | l_wkyrs |
| aadd | net_carry |
| aadd | net_rev |
| aadd | net_revenue |
| aadd | org_nets |

| Called Routine | Calling Routine |
|---|---|
| aadd | pess_scan |
| aadd | pess_show |
| aadd | recalc_tda |
| aadd | recomp_foe |
| aadd | rem_ts_cost |
| aadd | retrieve_costs |
| aadd | split_chart |
| aadd | tech_base_ihoh |
| aadd | total_engine |
| aadd | tot_exp1 |
| aadd | tot_exp2 |
| aadd | tsamt |
| aaddf | amcc2 |
| aaddf | amcc4 |
| aaddf | amcc5 |
| aaddf | pess_scan |
| aaddf | recalc_tda |
| aaddf | recomp_center |
| aaddf | recomp_foe |
| aaddf | recomp_lab |
| aaddf | split_chart |
| aaddf | total_engine |
| aaddf | view_capmaj |
| aaddf | view_internal |
| aaddf | view_major |
| aaddf | view_support |
| accept_rates | view_rates |
| achoice | choose |
| achoice | choosemenu |
| achoice | te_tda_org |
| addnewfile | defineallfiles |
| addupfactors | edit_foe_factors |
| addupfactors | view_foe_factors |
| add_field | core_tot |
| add_rec | e_capital |
| add_rec | e_capmaj |
| add_rec | e_ctda |
| add_rec | e_internal |
| add_rec | e_major |
| add_rec | e_off |
| add_rec | e_org |
| add_rec | e_personnel |
| add_rec | e_per_item |
| add_rec | e_pessimism |
| add_rec | e_product |
| add_rec | e_revenue |

| Called Routine | Calling Routine |
|---|---|
| add_rec | e_revtype |
| add_rec | e_skill |
| add_rec | e_source |
| add_rec | e_support |
| add_rec | put_cap |
| add_rec | put_factor |
| afields | browse |
| alength | choose |
| align | bal_part2 |
| align | core_dollars |
| align | core_tot |
| align | e_personnel |
| allocadd | alloccomp |
| allocadd | source_use |
| allocate_costs | tech_base_ihoh |
| allocate_costs | tot_exp1 |
| allocate_costs | tot_exp2 |
| alloccomp | source_use |
| allocsu | source_use |
| alloc_cost | dopessimism |
| alloc_det | core_tot |
| alloc_one | alloc_cost |
| alloc_wky | alloc_cost |
| amaxlen | choose |
| amaxlen | choosemenu |
| amaxlen | getthese |
| amcc1 | amccharts |
| amcc1a | amccharts |
| amcc1b | amccharts |
| amcc1c | amccharts |
| amcc1d | amccharts |
| amcc1e | amccharts |
| amcc2 | amccharts |
| amcc3 | amccharts |
| amcc4 | amccharts |
| amcc5 | amccharts |
| amccharts | list_center |
| amcc_ihoh | amccharts |
| amult | alloc_one |
| amult | amcc_ihoh |
| amult | compass |
| amult | doload |
| amult | e_pessimism |
| amult | get_totals |
| amult | larray |
| amult | list_avg_fact |

| Called Routine | Calling Routine |
|---|---|
| amult | load_main_factors |
| amult | l_ext |
| amult | l_main |
| amult | pess_scan |
| amult | post_totals |
| amult | put_totals |
| amult | recalc_tda |
| amult | recomp_foe |
| amult | retrieve_costs |
| amult | tsamt |
| anal_details | disp_foe |
| anal_details | view_center |
| anonzero | remove_empty |
| anonzero | user_defined |
| ardist | gasubsidy |
| ardist | opt_calc |
| ardiv | gasubsidy |
| ardiv | opt_calc |
| arneg | opt_calc |
| arsum | dirorgcalc |
| arsum | loadrevs |
| arsum | opt_calc |
| arsum | reloaddata |
| arvadd | dirorgcalc |
| arvadd | e_opt_pers |
| arvadd | gasubsidy |
| arvadd | loadrevs |
| arvadd | opt_calc |
| arvsub | opt_calc |
| askok | genmsgwindow |
| asort | doviewtext |
| assorted | bpm (main) |
| asub | alloc_one |
| asub | alloc_wky |
| asub | balance1 |
| asub | balance2 |
| asub | balance3 |
| asub | core_tot |
| asub | disp_capital |
| asub | disp_contract |
| asub | disp_foe_guts |
| asub | disp_internal |
| asub | disp_rates |
| asub | doload |
| asub | dopessimism |
| asub | list_pess1 |

| Called Routine | Calling Routine |
|---|---|
| asub | l_cap |
| asub | l_int |
| asub | l_main |
| asub | l_supt |
| asub | net_carry |
| asub | net_rev |
| asub | org_nets |
| asub | pess_scan |
| asub | pess_show |
| asub | recomp_foe |
| asub | recomp_lab |
| asub | rem_ts_cost |
| avdiv | allocate_costs |
| avdiv | alloc_one |
| avdiv | alloc_wky |
| avdiv | amcc4 |
| avdiv | avgload |
| avdiv | disp_rates |
| avdiv | dopessimism |
| avdiv | e_cpb_ga |
| avdiv | list_avg_fact |
| avdiv | recalc_tda |
| avdiv | recomp_foe |
| avdiv | tech_base_ihoh |
| avgload | doload |
| avmult | allocate_costs |
| avmult | alloc_wky |
| avmult | amcc4 |
| avmult | avgload |
| avmult | disp_rates |
| avmult | list_avg_fact |
| avmult | list_pess1 |
| avmult | pess_adj |
| avmult | pess_scan |
| avmult | pess_show |
| avmult | recalc_tda |
| balance1 | balances |
| balance2 | balances |
| balance3 | balances |
| balances | list_center |
| bal_part1 | balance1 |
| bal_part1 | balance2 |
| bal_part1 | balance3 |
| bal_part2 | balance1 |
| bal_part2 | balance2 |
| bal_part2 | balance3 |

| Called Routine | Calling Routine |
|---|---|
| baseline | bpm (main) |
| blank_if_cont | e_personnel |
| blimempak | bpm (main) |
| blimempak | choosemenu |
| blimempak | recalc_tda |
| blimempak | showmemory |
| bliovlclr | bpm (main) |
| bliovlclr | choosemenu |
| bliovlclr | recalc_tda |
| bliovlclr | showmemory |
| browse | dobrowse |
| buildfile | addnewfile |
| buildfile | upgrone |
| calloc_one | alloc_one |
| calloc_wky | alloc_wky |
| cctot | e_corecap |
| cdosvers | dosvers |
| cent | avgload |
| cent | balance1 |
| cent | balance2 |
| cent | balance3 |
| cent | bpm (main) |
| cent | choose |
| cent | choosemenu |
| cent | copydata |
| cent | copyone |
| cent | corefilt |
| cent | core_dollars |
| cent | core_qc |
| cent | core_tot |
| cent | ctreport |
| cent | deleteone |
| cent | delete_lab |
| cent | del_allbut |
| cent | dobrowse |
| cent | docheck |
| cent | doindex |
| cent | dolicense |
| cent | doload |
| cent | dopack |
| cent | doproj_org_tda |
| cent | doreindex |
| cent | edit_baseyear |
| cent | genload |
| cent | genmsgwindow |
| cent | getfiltcond |

| Called Routine | Calling Routine |
|---|---|
| cent | getthese |
| cent | go_general |
| cent | help |
| cent | incr_baseyear |
| cent | list_avg_fact |
| cent | list_engine |
| cent | list_tot1 |
| cent | optselect |
| cent | opt_personnel |
| cent | opt_save |
| cent | org_nets |
| cent | pess_scan |
| cent | project_tda |
| cent | recalc_tda |
| cent | recalc_year |
| cent | recomp_center |
| cent | recomp_lab |
| cent | removeone |
| cent | remove_empty |
| cent | remove_unlinked |
| cent | rerecalc_tda |
| cent | rev_pessimism |
| cent | showmemory |
| cent | source_use |
| cent | tda_whatif |
| cent | tech_base_ihoh |
| cent | tempupgrade |
| cent | total_engine |
| cent | tot_exp1 |
| cent | tot_exp2 |
| cent | tsamt |
| cent | upgrone |
| cent | user_defined |
| cent | user_totals |
| cent | view_capital |
| cent | view_capmaj |
| cent | view_ctda |
| cent | view_internal |
| cent | view_major |
| cent | view_off |
| cent | view_orgs |
| cent | view_personnel |
| cent | view_products |
| cent | view_revenue |
| cent | view_revtypes |
| cent | view_skills |

| Called Routine | Calling Routine |
|---|---|
| cent | view_sources |
| cent | view_support |
| cent | warnem |
| cent | whatif |
| checklevel | bpm (main) |
| checklevel | view_personnel |
| checklevel | view_rates |
| checklevel | view_revenue |
| checkone | docheck |
| chkidx | addnewfile |
| choose | alloc_cost |
| choose | bpm (main) |
| choose | ctr_toggle |
| choose | doviewtext |
| choose | edit_foe_factors |
| choose | edit_main_factors |
| choose | edit_personnel |
| choose | edit_revenue |
| choose | eval_toggle |
| choose | go_corecap |
| choose | go_spec |
| choose | isinfile |
| choose | okapn |
| choose | okass |
| choose | okcat |
| choose | okdc |
| choose | okext |
| choose | okfact |
| choose | okfoe |
| choose | okgrp |
| choose | okintlab |
| choose | oklab |
| choose | okoper |
| choose | okorg |
| choose | okpers |
| choose | okpos |
| choose | okps |
| choose | okskl |
| choose | oksrc |
| choose | okwky |
| choose | okyn |
| choose | opt_view1 |
| choose | opt_view2 |
| choose | opt_view3 |
| choose | sel_foe |
| choose | sel_lab_foe |

| Called Routine | Calling Routine |
|---|---|
| choose | tgt_toggle |
| choose | user_defined |
| choose | user_totals |
| choosemenu | amccharts |
| choosemenu | anal_details |
| choosemenu | assorted |
| choosemenu | balances |
| choosemenu | baseline |
| choosemenu | data_entry |
| choosemenu | expenses |
| choosemenu | list_capital |
| choosemenu | list_center |
| choosemenu | list_corecap |
| choosemenu | list_factors |
| choosemenu | list_personnel |
| choosemenu | list_pessimism |
| choosemenu | list_rates |
| choosemenu | list_revenue |
| choosemenu | list_tda_org |
| choosemenu | list_tda_wif |
| choosemenu | list_totals |
| choosemenu | opt_fact |
| choosemenu | opt_list |
| choosemenu | opt_view |
| choosemenu | sys_edit |
| choosemenu | ts_amounts |
| choosemenu | whatif |
| clnupdest | amcc1 |
| clnupdest | amcc1a |
| clnupdest | amcc1b |
| clnupdest | amcc1c |
| clnupdest | amcc1d |
| clnupdest | amcc1e |
| clnupdest | amcc2 |
| clnupdest | amcc3 |
| clnupdest | amcc4 |
| clnupdest | amcc5 |
| clnupdest | amcc_ihoh |
| clnupdest | balance1 |
| clnupdest | balance2 |
| clnupdest | balance3 |
| clnupdest | core_dollars |
| clnupdest | core_qc |
| clnupdest | core_tot |
| clnupdest | docheck |
| clnupdest | intl_diag |

| Called Routine | Calling Routine |
|---|---|
| clnupdest | list_avg_fact |
| clnupdest | list_engine |
| clnupdest | list_pess1 |
| clnupdest | list_tda1 |
| clnupdest | list_tda2 |
| clnupdest | list_tda3 |
| clnupdest | list_tda4 |
| clnupdest | list_tda5 |
| clnupdest | list_tot1 |
| clnupdest | opt_list1 |
| clnupdest | opt_list2 |
| clnupdest | opt_list3 |
| clnupdest | org_nets |
| clnupdest | source_use |
| clnupdest | tech_base_ihoh |
| clnupdest | total_engine |
| clnupdest | tot_exp1 |
| clnupdest | tot_exp2 |
| clnupdest | tsamt |
| clnupdest | win_print |
| closefile | amcc1 |
| closefile | amcc1a |
| closefile | amcc1b |
| closefile | amcc1c |
| closefile | amcc1d |
| closefile | amcc1e |
| closefile | amcc2 |
| closefile | amcc3 |
| closefile | amcc4 |
| closefile | amcc5 |
| closefile | avgload |
| closefile | balance1 |
| closefile | balance2 |
| closefile | balance3 |
| closefile | checkone |
| closefile | copyone |
| closefile | core_dollars |
| closefile | core_qc |
| closefile | core_tot |
| closefile | ctreport |
| closefile | deleteone |
| closefile | del_revenue |
| closefile | disp_foe |
| closefile | docheck |
| closefile | doload |
| closefile | dopack |

| Called Routine | Calling Routine |
|---|---|
| closefile | dopessimism |
| closefile | doreindex |
| closefile | edit_baseyear |
| closefile | e_revenue |
| closefile | genload |
| closefile | get_totals |
| closefile | help |
| closefile | incr_baseyear |
| closefile | intl_diag |
| closefile | isinfile |
| closefile | list_avg_fact |
| closefile | list_engine |
| closefile | list_ext1 |
| closefile | list_int1 |
| closefile | list_prod1 |
| closefile | list_wif1 |
| closefile | load_foe_factors |
| closefile | load_main_factors |
| closefile | load_orgs |
| closefile | move_revenue |
| closefile | oksrc |
| closefile | opt_personnel |
| closefile | org_nets |
| closefile | post_totals |
| closefile | put_factor |
| closefile | recalc_all |
| closefile | recalc_tda |
| closefile | recomp_center |
| closefile | recomp_lab |
| closefile | reloaddata |
| closefile | removeone |
| closefile | remove_empty |
| closefile | remove_unlinked |
| closefile | rev_pessimism |
| closefile | source_use |
| closefile | tda_whatif |
| closefile | tech_base_ihoh |
| closefile | total_engine |
| closefile | tot_cap1 |
| closefile | tot_carry |
| closefile | tot_exp1 |
| closefile | tot_exp2 |
| closefile | tot_ext1 |
| closefile | tot_int1 |
| closefile | tot_netrev |
| closefile | tot_pers1 |

| Called Routine | Calling Routine |
|---|---|
| closefile | tot_rev1 |
| closefile | tot_rev2 |
| closefile | unlinked |
| closefile | view_capital |
| closefile | view_capmaj |
| closefile | view_center |
| closefile | view_corecap |
| closefile | view_ctda |
| closefile | view_foe_factors |
| closefile | view_internal |
| closefile | view_main_factors |
| closefile | view_major |
| closefile | view_off |
| closefile | view_orgs |
| closefile | view_personnel |
| closefile | view_products |
| closefile | view_rates |
| closefile | view_revenue |
| closefile | view_revtypes |
| closefile | view_skills |
| closefile | view_sources |
| closefile | view_support |
| closefile | whatif |
| closepage | amcc1 |
| closepage | amcc1a |
| closepage | amcc1b |
| closepage | amcc1c |
| closepage | amcc1d |
| closepage | amcc1e |
| closepage | amcc2 |
| closepage | amcc3 |
| closepage | amcc4 |
| closepage | amcc5 |
| closepage | amcc_ihoh |
| closepage | balance1 |
| closepage | balance2 |
| closepage | balance3 |
| closepage | core_dollars |
| closepage | core_qc |
| closepage | core_tot |
| closepage | ctreport |
| closepage | docheck |
| closepage | intl_diag |
| closepage | list_avg_fact |
| closepage | list_engine |
| closepage | list_pess1 |

| Called Routine | Calling Routine |
|---|---|
| closepage | list_tda1 |
| closepage | list_tda2 |
| closepage | list_tda3 |
| closepage | list_tda4 |
| closepage | list_tda5 |
| closepage | list_tot1 |
| closepage | opt_list1 |
| closepage | opt_list2 |
| closepage | opt_list3 |
| closepage | org_nets |
| closepage | source_use |
| closepage | tech_base_ihoh |
| closepage | total_engine |
| closepage | tot_exp1 |
| closepage | tot_exp2 |
| closepage | tsamt |
| closepage | win_print |
| closewindow | alloc_one |
| closewindow | balance1 |
| closewindow | balance2 |
| closewindow | balance3 |
| closewindow | bpm (main) |
| closewindow | choose |
| closewindow | choosemenu |
| closewindow | compare_wif |
| closewindow | copydata |
| closewindow | corefilt |
| closewindow | core_dollars |
| closewindow | core_qc |
| closewindow | core_tot |
| closewindow | delete_lab |
| closewindow | del_allbut |
| closewindow | disp_capital |
| closewindow | disp_contract |
| closewindow | disp_expense |
| closewindow | disp_external |
| closewindow | disp_foe |
| closewindow | disp_internal |
| closewindow | disp_wkyrs |
| closewindow | dobrowse |
| closewindow | docheck |
| closewindow | doindex |
| closewindow | dolicense |
| closewindow | doload |
| closewindow | dopack |
| closewindow | dopessimism |

| Called Routine | Calling Routine |
|---|---|
| closewindow | doproj_org_tda |
| closewindow | doreindex |
| closewindow | edit_baseyear |
| closewindow | e_cpb_ga |
| closewindow | e_cpb_wky |
| closewindow | genmsgwindow |
| closewindow | getfiltcond |
| closewindow | getthese |
| closewindow | go_general |
| closewindow | help |
| closewindow | incr_baseyear |
| closewindow | list_avg_fact |
| closewindow | list_engine |
| closewindow | list_tot1 |
| closewindow | optselect |
| closewindow | opt_fact1 |
| closewindow | opt_fact2 |
| closewindow | opt_personnel |
| closewindow | opt_save |
| closewindow | org_nets |
| closewindow | pess_scan |
| closewindow | project_tda |
| closewindow | recalc_tda |
| closewindow | recalc_year |
| closewindow | recomp_center |
| closewindow | recomp_lab |
| closewindow | remove_empty |
| closewindow | remove_unlinked |
| closewindow | rev_pessimism |
| closewindow | showmemory |
| closewindow | source_use |
| closewindow | tda_whatif |
| closewindow | tech_base_ihoh |
| closewindow | tempupgrade |
| closewindow | te_tda_org |
| closewindow | total_engine |
| closewindow | tot_exp1 |
| closewindow | tot_exp2 |
| closewindow | tsamt |
| closewindow | upgrone |
| closewindow | user_defined |
| closewindow | user_totals |
| closewindow | view_capital |
| closewindow | view_capmaj |
| closewindow | view_center |
| closewindow | view_corecap |

| Called Routine | Calling Routine |
|---|---|
| closewindow | view_ctda |
| closewindow | view_foe_factors |
| closewindow | view_internal |
| closewindow | view_main_factors |
| closewindow | view_major |
| closewindow | view_off |
| closewindow | view_orgs |
| closewindow | view_personnel |
| closewindow | view_products |
| closewindow | view_rates |
| closewindow | view_revenue |
| closewindow | view_revtypes |
| closewindow | view_skills |
| closewindow | view_sources |
| closewindow | view_support |
| closewindow | view_tda_org |
| closewindow | warnem |
| closewindow | whatif |
| compare_wif | view_tda_org |
| compass | e_capital |
| compass | post_repl |
| compchg | e_pessimism |
| compcpb | bal_part2 |
| compcpb | e_carry |
| compcpb | e_revenue |
| compcpb | e_rev_item |
| compcpb | recomp_foe |
| compcpb | source_use |
| compcpb | tech_base_ihoh |
| compcpb | tot_exp1 |
| compcpb | tot_exp2 |
| compose_line | user_defined |
| compwky | bal_part1 |
| compwky | e_personnel |
| compwky | e_per_item |
| compwky | recomp_foe |
| copydata | assorted |
| copyone | copydata |
| corefilt | core_dollars |
| core_dollars | list_corecap |
| core_qc | list_corecap |
| core_tot | amccharts |
| ctreport | core_tot |
| ctr_toggle | view_center |
| c_o | user_defined |
| data_entry | bpm (main) |

| Called Routine | Calling Routine |
|---|---|
| dbedit | browse |
| dbedit | go_general |
| defineallfiles | bpm (main) |
| deleteone | delete_lab |
| deleteone | del_allbut |
| delete_lab | assorted |
| del_allbut | assorted |
| del_personnel | view_personnel |
| del_rec | del_personnel |
| del_rec | del_record |
| del_rec | del_revenue |
| del_rec | e_per_item |
| del_rec | put_cap |
| del_rec | put_factor |
| del_record | del_revenue |
| del_record | rev_pessimism |
| del_record | view_capital |
| del_record | view_capmaj |
| del_record | view_ctda |
| del_record | view_internal |
| del_record | view_major |
| del_record | view_off |
| del_record | view_orgs |
| del_record | view_products |
| del_record | view_revtypes |
| del_record | view_skills |
| del_record | view_sources |
| del_record | view_support |
| del_revenue | view_revenue |
| dircust | core_tot |
| dircust | list_ext1 |
| dircust | list_int1 |
| dircust | list_prod1 |
| dircust | list_rev1 |
| dircust | source_use |
| dircust | tot_carry |
| dircust | tot_exp1 |
| dircust | tot_ext1 |
| dircust | tot_int1 |
| dircust | tot_netrev |
| dircust | tot_rev1 |
| dircust | tot_rev2 |
| dirorgcalc | opt_calc |
| disp_capital | anal_details |
| disp_contract | anal_details |
| disp_expense | anal_details |

| Called Routine | Calling Routine |
|---|---|
| disp_external | anal_details |
| disp_foe | view_totals |
| disp_foe_guts | ctr_toggle |
| disp_foe_guts | disp_foe |
| disp_foe_guts | dotoggle |
| disp_foe_guts | recalc_all |
| disp_foe_guts | recalc_lab |
| disp_foe_guts | view_center |
| disp_internal | anal_details |
| disp_rates | view_rates |
| disp_wkyrs | anal_details |
| docheck | assorted |
| doindex | chkidx |
| doit | disp_foe |
| doit | dopessimism |
| doit | opt_personnel |
| doit | rev_pessimism |
| doit | tda_whatif |
| doit | view_capital |
| doit | view_capmaj |
| doit | view_center |
| doit | view_corecap |
| doit | view_ctda |
| doit | view_foe_factors |
| doit | view_internal |
| doit | view_main_factors |
| doit | view_major |
| doit | view_off |
| doit | view_orgs |
| doit | view_personnel |
| doit | view_products |
| doit | view_rates |
| doit | view_revenue |
| doit | view_revtypes |
| doit | view_skills |
| doit | view_sources |
| doit | view_support |
| doit | view_tda_org |
| doload | assorted |
| dopack | bpm (main) |
| dopessimism | rev_pessimism |
| doproj_org_tda | view_tda_org |
| doreindex | assorted |
| doskip | doit |
| doskip | whatsnext |
| dosvers | bpm (main) |

| Called Routine | Calling Routine |
|---|---|
| dotoggle | disp_foe |
| doviewtext | assorted |
| doviewtext | list_capital |
| doviewtext | list_center |
| doviewtext | list_corecap |
| doviewtext | list_factors |
| doviewtext | list_personnel |
| doviewtext | list_pessimism |
| doviewtext | list_rates |
| doviewtext | list_revenue |
| doviewtext | list_tda_org |
| doviewtext | list_tda_wif |
| doviewtext | list_totals |
| doviewtext | opt_list |
| dtos | user_defined |
| edit_baseyear | sys_edit |
| edit_foe_factors | view_foe_factors |
| edit_main_factors | view_main_factors |
| edit_personnel | view_personnel |
| edit_revenue | view_revenue |
| escape | anal_details |
| escape | assorted |
| escape | baseline |
| escape | data_entry |
| escape | sys_edit |
| escape | whatif |
| est_factor | e_factor |
| eval_toggle | tda_whatif |
| expenses | list_center |
| e_capital | view_capital |
| e_capmaj | view_capmaj |
| e_carry | edit_revenue |
| e_corecap | view_corecap |
| e_cpb_ga | alloc_cost |
| e_cpb_wky | alloc_cost |
| e_ctda | view_ctda |
| e_factor | edit_foe_factors |
| e_factor | edit_main_factors |
| e_internal | view_internal |
| e_major | view_major |
| e_off | view_off |
| e_opt_pers | opt_calc |
| e_opt_pers | opt_personnel |
| e_org | view_orgs |
| e_personnel | edit_personnel |
| e_personnel | view_personnel |

| Called Routine | Calling Routine |
|---|---|
| e_per_item | edit_personnel |
| e_pessimism | rev_pessimism |
| e_product | view_products |
| e_revenue | edit_revenue |
| e_revenue | view_revenue |
| e_revtype | view_revtypes |
| e_rev_item | edit_revenue |
| e_rev_item | e_carry |
| e_skill | view_skills |
| e_source | view_sources |
| e_support | view_support |
| e_tda_org | view_tda_org |
| e_tda_tgt | tda_whatif |
| e_tda_what | tda_whatif |
| files | bpm (main) |
| fillnf | list_cap1 |
| fillnf | list_core1 |
| fillnf | list_ctda |
| fillnf | list_ext1 |
| fillnf | list_fac1 |
| fillnf | list_int1 |
| fillnf | list_off |
| fillnf | list_orgs |
| fillnf | list_pers1 |
| fillnf | list_pess_rev |
| fillnf | list_prod1 |
| fillnf | list_rev1 |
| fillnf | list_revtypes |
| fillnf | list_skills |
| fillnf | list_sources |
| fillnf | list_wif1 |
| fillnf | tot_cap1 |
| fillnf | tot_carry |
| fillnf | tot_ext1 |
| fillnf | tot_int1 |
| fillnf | tot_netrev |
| fillnf | tot_pers1 |
| fillnf | tot_pess_rev |
| fillnf | tot_rev1 |
| fillnf | tot_rev2 |
| fillpmu | disp_foe |
| fillpmu | dopessimism |
| fillpmu | opt_personnel |
| fillpmu | rev_pessimism |
| fillpmu | tda_whatif |
| fillpmu | view_capital |

| Called Routine | Calling Routine |
|---|---|
| fillpmu | view_capmaj |
| fillpmu | view_center |
| fillpmu | view_corecap |
| fillpmu | view_ctda |
| fillpmu | view_foe_factors |
| fillpmu | view_internal |
| fillpmu | view_main_factors |
| fillpmu | view_major |
| fillpmu | view_off |
| fillpmu | view_orgs |
| fillpmu | view_personnel |
| fillpmu | view_products |
| fillpmu | view_rates |
| fillpmu | view_revenue |
| fillpmu | view_revtypes |
| fillpmu | view_skills |
| fillpmu | view_sources |
| fillpmu | view_support |
| fillpmu | view_tda_org |
| fillpu | alloc_cost |
| fillpu | amccharts |
| fillpu | anal_details |
| fillpu | assorted |
| fillpu | balances |
| fillpu | baseline |
| fillpu | data_entry |
| fillpu | edit_foe_factors |
| fillpu | edit_main_factors |
| fillpu | edit_personnel |
| fillpu | edit_revenue |
| fillpu | expenses |
| fillpu | list_capital |
| fillpu | list_center |
| fillpu | list_corecap |
| fillpu | list_factors |
| fillpu | list_personnel |
| fillpu | list_pessimism |
| fillpu | list_rates |
| fillpu | list_revenue |
| fillpu | list_tda_org |
| fillpu | list_tda_wif |
| fillpu | list_totals |
| fillpu | opt_fact |
| fillpu | opt_list |
| fillpu | opt_view |
| fillpu | sys_edit |

| Called Routine | Calling Routine |
|---|---|
| fillpu | ts_amounts |
| fillpu | whatif |
| fillpvp | est_factor |
| fillpvp | e_tda_tgt |
| fillpvp | move_personnel |
| fillpvp | move_revenue |
| fillpvp | source_use |
| findkey | e_personnel |
| findkey | e_revenue |
| findkey | load_orgs |
| findkey | move_personnel |
| findkey | move_revenue |
| findkey | openfile |
| findkey | reloaddata |
| gasubsidy | opt_calc |
| genload | doload |
| genmsgwindow | showdemomsg |
| genmsgwindow | view_rates |
| genmsgwindow | whatif |
| getdatetime | chkidx |
| getfileid | openfile |
| getfiltcond | user_defined |
| getfiltcond | user_totals |
| getthese | bpm (main) |
| getthese | copydata |
| getthese | core_tot |
| getthese | doload |
| getthese | edit_baseyear |
| getthese | est_factor |
| getthese | e_tda_tgt |
| getthese | limit_overtime |
| getthese | move_personnel |
| getthese | move_revenue |
| getthese | setdest |
| getthese | source_use |
| getthese | split_chart |
| get_array | aaddf |
| get_array | amcc4 |
| get_array | anonzero |
| get_array | avgload |
| get_array | bal_part2 |
| get_array | compose_line |
| get_array | edit_revenue |
| get_array | e_capital |
| get_array | e_capmaj |
| get_array | e_internal |

| Called Routine | Calling Routine |
|---|---|
| get_array | e_major |
| get_array | e_pessimism |
| get_array | e_revenue |
| get_array | e_support |
| get_array | get_factor |
| get_array | get_totals |
| get_array | get_wkyrs |
| get_array | intl_diag |
| get_array | listcapstr |
| get_array | net_carry |
| get_array | net_rev |
| get_array | pess_adj |
| get_array | pess_adj_exp |
| get_array | pess_scan |
| get_array | post_repl |
| get_array | recalc_tda |
| get_array | recomp_foe |
| get_array | source_use |
| get_array | split_chart |
| get_array | tech_base_ihoh |
| get_array | tot_exp1 |
| get_array | tot_exp2 |
| get_array | tsamt |
| get_cap | core_tot |
| get_cap | e_corecap |
| get_cost_tot | amcc_ihoh |
| get_cost_tot | disp_external |
| get_cost_tot | disp_foe_guts |
| get_cost_tot | disp_rates |
| get_cost_tot | dopessimism |
| get_cost_tot | l_ext |
| get_cost_tot | l_main |
| get_cost_tot | recalc_tda |
| get_cost_tot | reloaddata |
| get_cost_tot | retrieve_costs |
| get_factor | load_foe_factors |
| get_factor | load_main_factors |
| get_pic | browse |
| get_set | dobrowse |
| get_set | getthese |
| get_set | help |
| get_totals | amcc_ihoh |
| get_totals | core_tot |
| get_totals | disp_capital |
| get_totals | disp_contract |
| get_totals | disp_expense |

| Called Routine | Calling Routine |
|---|---|
| get_totals | disp_external |
| get_totals | disp_foe_guts |
| get_totals | disp_internal |
| get_totals | disp_rates |
| get_totals | disp_wkyrs |
| get_totals | dopessimism |
| get_totals | get_cost_tot |
| get_totals | l_cap |
| get_totals | l_exp |
| get_totals | l_ext |
| get_totals | l_int |
| get_totals | l_main |
| get_totals | l_supt |
| get_totals | l_wkyrs |
| get_totals | org_nets |
| get_totals | recomp_lab |
| get_totals | rem_ts_cost |
| get_totals | retrieve_costs |
| get_wkyrs | amcc3 |
| get_wkyrs | bal_part1 |
| get_wkyrs | doload |
| get_wkyrs | edit_personnel |
| get_wkyrs | e_personnel |
| get_wkyrs | list_avg_fact |
| get_wkyrs | recalc_tda |
| get_wkyrs | recomp_foe |
| go_corecap | view_corecap |
| go_general | isinfile |
| go_general | opt_personnel |
| go_general | rev_pessimism |
| go_general | tda_whatif |
| go_general | view_ctda |
| go_general | view_off |
| go_general | view_orgs |
| go_general | view_revtypes |
| go_general | view_skills |
| go_general | view_sources |
| go_spec | view_capital |
| go_spec | view_capmaj |
| go_spec | view_internal |
| go_spec | view_major |
| go_spec | view_personnel |
| go_spec | view_products |
| go_spec | view_revenue |
| go_spec | view_support |
| go_spec | view_tda_org |

| Called Routine | Calling Routine |
|---|---|
| handles | bpm (main) |
| help | a_handler |
| if | doskip |
| incr_baseyear | sys_edit |
| indexkey | browse |
| indexkey | chkidx |
| indexkey | del_rec |
| indexkey | doskip |
| indexkey | findkey |
| indexkey | go_spec |
| indexkey | isinfile |
| indexord | core_dollars |
| indexord | core_tot |
| indexord | list_engine |
| indexord | total_engine |
| initscreen | scrollfile |
| intl_diag | list_center |
| intl_diag | list_totals |
| isinfile | e_capital |
| isinfile | e_internal |
| isinfile | e_personnel |
| isinfile | e_pessimism |
| isinfile | e_revenue |
| isinfile | list_pers1 |
| isinfile | list_skills |
| isinfile | move_personnel |
| isinfile | move_revenue |
| isinfile | tot_pers1 |
| ispath | copydata |
| ispath | doload |
| larray | allocate_costs |
| larray | amcc2 |
| larray | amcc3 |
| larray | amcc5 |
| larray | amcc_ihoh |
| larray | balance1 |
| larray | balance2 |
| larray | balance3 |
| larray | bal_part1 |
| larray | bal_part2 |
| larray | intl_diag |
| larray | list_avg_fact |
| larray | list_pess1 |
| larray | l_cap |
| larray | l_exp |
| larray | l_ext |

| Called Routine | Calling Routine |
|---|---|
| larray | l_int |
| larray | l_main |
| larray | l_supt |
| larray | l_wkyrs |
| larray | org_nets |
| larray | split_chart |
| larray | tech_base_ihoh |
| larray | total_engine |
| larray | tot_exp1 |
| larray | tot_exp2 |
| larray | tsamt |
| larray | user_defined |
| larray | wr_arr |
| lastrec | browse |
| lastrec | xbrowse |
| leftjust | showeditmsg |
| limit_overtime | sys_edit |
| list_avg_fact | list_factors |
| list_cap1 | list_capital |
| list_capital | view_capital |
| list_center | view_center |
| list_core1 | list_corecap |
| list_corecap | view_corecap |
| list_ctda | view_ctda |
| list_engine | user_defined |
| list_ext1 | list_revenue |
| list_fac1 | list_factors |
| list_factors | view_foe_factors |
| list_factors | view_main_factors |
| list_int1 | list_revenue |
| list_off | view_off |
| list_orgs | view_orgs |
| list_pers1 | list_personnel |
| list_personnel | view_personnel |
| list_pess1 | list_pessimism |
| list_pessimism | dopessimism |
| list_pess_rev | list_pessimism |
| list_prod1 | list_revenue |
| list_rates | view_rates |
| list_rev1 | list_revenue |
| list_revenue | view_revenue |
| list_revtypes | view_revtypes |
| list_skills | view_skills |
| list_sources | view_sources |
| list_tda1 | list_tda_wif |
| list_tda2 | list_tda_wif |

| Called Routine | Calling Routine |
|---|---|
| list_tda3 | list_tda_wif |
| list_tda4 | list_tda_org |
| list_tda5 | list_tda_wif |
| list_tda_org | view_tda_org |
| list_tda_wif | tda_whatif |
| list_tot1 | list_center |
| list_tot1 | list_totals |
| list_totals | disp_foe |
| list_wif1 | list_tda_org |
| list_wif1 | list_tda_wif |
| list_wif1 | opt_list |
| loadpsf | user_defined |
| loadpsf | user_totals |
| loadrevs | reloaddata |
| load_foe_factors | bal_part1 |
| load_foe_factors | bal_part2 |
| load_foe_factors | list_avg_fact |
| load_foe_factors | recalc_tda |
| load_foe_factors | recomp_foe |
| load_foe_factors | source_use |
| load_foe_factors | tech_base_ihoh |
| load_foe_factors | tot_exp1 |
| load_foe_factors | tot_exp2 |
| load_foe_factors | view_foe_factors |
| load_foe_factors | view_personnel |
| load_foe_factors | view_revenue |
| load_foe_factors | view_totals |
| load_main_factors | bpm (main) |
| load_orgs | bpm (main) |
| ltrim | fillfld |
| ltrim | get_pic |
| l_cap | list_tot1 |
| l_exp | list_tot1 |
| l_ext | list_tot1 |
| l_int | intl_diag |
| l_int | list_tot1 |
| l_main | list_tot1 |
| l_menu | doit |
| l_supt | list_tot1 |
| l_wkyrs | list_tot1 |
| minmax | e_capital |
| minmax | e_capmaj |
| minmax | e_factor |
| minmax | e_internal |
| minmax | e_major |
| minmax | e_per_item |

| Called Routine | Calling Routine |
|---|---|
| minmax | e_rev_item |
| minmax | e_support |
| minmax | post_repl |
| minmax | post_totals |
| minmax | put_totals |
| minmax | recomp_foe |
| minmax | view_capmaj |
| minmax | view_internal |
| minmax | view_major |
| minmax | view_support |
| move_personnel | view_personnel |
| move_revenue | view_revenue |
| net_rev | net_revenue |
| net_rev | recalc_tda |
| nonzero | allocate_costs |
| nonzero | anonzero |
| nonzero | e_per_item |
| nonzero | put_factor |
| nonzero | put_totals |
| nonzero | total_engine |
| norec | rev_pessimism |
| norec | tda_whatif |
| norec | view_capital |
| norec | view_capmaj |
| norec | view_ctda |
| norec | view_internal |
| norec | view_major |
| norec | view_off |
| norec | view_orgs |
| norec | view_personnel |
| norec | view_products |
| norec | view_revenue |
| norec | view_revtypes |
| norec | view_skills |
| norec | view_sources |
| norec | view_support |
| norec | view_tda_org |
| okapn | corefilt |
| okapn | e_pessimism |
| okapn | e_revenue |
| okapn | e_revtype |
| okapn | list_core1 |
| okapn | list_ext1 |
| okapn | list_int1 |
| okapn | list_pess_rev |
| okapn | list_prod1 |

| Called Routine | Calling Routine |
|---|---|
| okapn | list_rev1 |
| okapn | list_revtypes |
| okapn | tot_carry |
| okapn | tot_ext1 |
| okapn | tot_int1 |
| okapn | tot_netrev |
| okapn | tot_pess_rev |
| okapn | tot_rev1 |
| okapn | tot_rev2 |
| okass | e_capital |
| okass | e_capmaj |
| okass | list_cap1 |
| okass | list_ext1 |
| okass | tot_cap1 |
| okass | tot_ext1 |
| okcat | e_pessimism |
| okcat | e_revenue |
| okcat | e_revtype |
| okcat | list_ext1 |
| okcat | list_int1 |
| okcat | list_pess_rev |
| okcat | list_prod1 |
| okcat | list_rev1 |
| okcat | list_revtypes |
| okcat | tot_carry |
| okcat | tot_ext1 |
| okcat | tot_int1 |
| okcat | tot_netrev |
| okcat | tot_pess_rev |
| okcat | tot_rev1 |
| okcat | tot_rev2 |
| okdc | list_ext1 |
| okdc | list_int1 |
| okdc | list_prod1 |
| okdc | list_rev1 |
| okdc | tot_carry |
| okdc | tot_ext1 |
| okdc | tot_int1 |
| okdc | tot_netrev |
| okdc | tot_rev1 |
| okdc | tot_rev2 |
| okext | list_ext1 |
| okext | tot_ext1 |
| okfact | list_fac1 |
| okfoe | corefilt |
| okfoe | e_pessimism |

| Called Routine | Calling Routine |
|---|---|
| okfoe | list_cap1 |
| okfoe | list_core1 |
| okfoe | list_ctda |
| okfoe | list_ext1 |
| okfoe | list_fac1 |
| okfoe | list_int1 |
| okfoe | list_orgs |
| okfoe | list_pers1 |
| okfoe | list_pess_rev |
| okfoe | list_prod1 |
| okfoe | list_rev1 |
| okfoe | list_wif1 |
| okfoe | tot_cap1 |
| okfoe | tot_carry |
| okfoe | tot_ext1 |
| okfoe | tot_int1 |
| okfoe | tot_netrev |
| okfoe | tot_pers1 |
| okfoe | tot_pess_rev |
| okfoe | tot_rev1 |
| okfoe | tot_rev2 |
| okgrp | e_major |
| okgrp | e_pessimism |
| okgrp | e_revenue |
| okgrp | e_source |
| okgrp | list_ext1 |
| okgrp | list_int1 |
| okgrp | list_pess_rev |
| okgrp | list_prod1 |
| okgrp | list_rev1 |
| okgrp | list_sources |
| okgrp | tot_carry |
| okgrp | tot_ext1 |
| okgrp | tot_int1 |
| okgrp | tot_netrev |
| okgrp | tot_pess_rev |
| okgrp | tot_rev1 |
| okgrp | tot_rev2 |
| okintlab | e_internal |
| oklab | corefilt |
| oklab | e_off |
| oklab | e_pessimism |
| oklab | list_cap1 |
| oklab | list_core1 |
| oklab | list_ctda |
| oklab | list_ext1 |

| Called Routine | Calling Routine |
|---|---|
| oklab | list_fac1 |
| oklab | list_int1 |
| oklab | list_off |
| oklab | list_orgs |
| oklab | list_pers1 |
| oklab | list_pess_rev |
| oklab | list_prod1 |
| oklab | list_rev1 |
| oklab | list_wif1 |
| oklab | move_personnel |
| oklab | move_revenue |
| oklab | tot_cap1 |
| oklab | tot_carry |
| oklab | tot_ext1 |
| oklab | tot_int1 |
| oklab | tot_netrev |
| oklab | tot_pers1 |
| oklab | tot_pess_rev |
| oklab | tot_rev1 |
| oklab | tot_rev2 |
| okontda | e_org |
| okoper | getfiltcond |
| okorg | e_org |
| okorg | list_orgs |
| okpers | e_personnel |
| okpers | list_pers1 |
| okpers | tot_pers1 |
| okpos | e_personnel |
| okpos | list_pers1 |
| okpos | tot_pers1 |
| okps | e_personnel |
| okps | list_pers1 |
| okps | tot_pers1 |
| okskl | e_skill |
| okskl | list_pers1 |
| okskl | list_skills |
| okskl | tot_pers1 |
| oksrc | e_major |
| oksrc | e_pessimism |
| oksrc | e_revenue |
| oksrc | e_support |
| oksrc | list_ext1 |
| oksrc | list_int1 |
| oksrc | list_pess_rev |
| oksrc | list_prod1 |
| oksrc | list_rev1 |

| Called Routine | Calling Routine |
|---|---|
| oksrc | list_sources |
| oksrc | tot_carry |
| oksrc | tot_ext1 |
| oksrc | tot_int1 |
| oksrc | tot_netrev |
| oksrc | tot_pess_rev |
| oksrc | tot_rev1 |
| oksrc | tot_rev2 |
| okwky | list_pers1 |
| okwky | tot_pers1 |
| okyn | list_orgs |
| oneorgcalc | opt_calc |
| one_measure | list_tda2 |
| openfile | amcc1 |
| openfile | amcc1a |
| openfile | amcc1b |
| openfile | amcc1c |
| openfile | amcc1d |
| openfile | amcc1e |
| openfile | amcc2 |
| openfile | amcc3 |
| openfile | amcc4 |
| openfile | amcc5 |
| openfile | avgload |
| openfile | balance1 |
| openfile | balance2 |
| openfile | balance3 |
| openfile | checkone |
| openfile | copyone |
| openfile | core_dollars |
| openfile | core_qc |
| openfile | core_tot |
| openfile | ctreport |
| openfile | deleteone |
| openfile | del_revenue |
| openfile | disp_foe |
| openfile | docheck |
| openfile | doload |
| openfile | dopack |
| openfile | dopessimism |
| openfile | doreindex |
| openfile | edit_baseyear |
| openfile | e_revenue |
| openfile | genload |
| openfile | get_factor |
| openfile | get_totals |

| Called Routine | Calling Routine |
|---|---|
| openfile | help |
| openfile | incr_baseyear |
| openfile | intl_diag |
| openfile | isinfile |
| openfile | list_avg_fact |
| openfile | list_engine |
| openfile | list_ext1 |
| openfile | list_int1 |
| openfile | list_prod1 |
| openfile | list_tda1 |
| openfile | list_tda3 |
| openfile | list_tda5 |
| openfile | list_wif1 |
| openfile | load_foe_factors |
| openfile | load_main_factors |
| openfile | load_orgs |
| openfile | move_revenue |
| openfile | oksrc |
| openfile | opt_personnel |
| openfile | org_nets |
| openfile | post_totals |
| openfile | project_tda |
| openfile | put_factor |
| openfile | recalc_all |
| openfile | recalc_tda |
| openfile | recomp_center |
| openfile | recomp_lab |
| openfile | reloaddata |
| openfile | removeone |
| openfile | remove_empty |
| openfile | remove_unlinked |
| openfile | rev_pessimism |
| openfile | source_use |
| openfile | tda_whatif |
| openfile | tech_base_ihoh |
| openfile | total_engine |
| openfile | tot_cap1 |
| openfile | tot_carry |
| openfile | tot_exp1 |
| openfile | tot_exp2 |
| openfile | tot_ext1 |
| openfile | tot_int1 |
| openfile | tot_netrev |
| openfile | tot_pers1 |
| openfile | tot_rev1 |
| openfile | tot_rev2 |

| Called Routine | Calling Routine |
|---|---|
| openfile | unlinked |
| openfile | view_capital |
| openfile | view_capmaj |
| openfile | view_center |
| openfile | view_corecap |
| openfile | view_ctda |
| openfile | view_foe_factors |
| openfile | view_internal |
| openfile | view_main_factors |
| openfile | view_major |
| openfile | view_off |
| openfile | view_orgs |
| openfile | view_personnel |
| openfile | view_products |
| openfile | view_rates |
| openfile | view_revenue |
| openfile | view_revtypes |
| openfile | view_skills |
| openfile | view_sources |
| openfile | view_support |
| openfile | view_tda_org |
| openfile | whatif |
| openwindow | alloc_one |
| openwindow | balance1 |
| openwindow | balance2 |
| openwindow | balance3 |
| openwindow | bpm (main) |
| openwindow | choose |
| openwindow | choosemenu |
| openwindow | compare_wif |
| openwindow | copydata |
| openwindow | corefilt |
| openwindow | core_dollars |
| openwindow | core_qc |
| openwindow | core_tot |
| openwindow | delete_lab |
| openwindow | del_allbut |
| openwindow | disp_capital |
| openwindow | disp_contract |
| openwindow | disp_expense |
| openwindow | disp_external |
| openwindow | disp_foe |
| openwindow | disp_internal |
| openwindow | disp_wkyrs |
| openwindow | dobrowse |
| openwindow | docheck |

| Called Routine | Calling Routine |
|---|---|
| openwindow | doindex |
| openwindow | dolicense |
| openwindow | doload |
| openwindow | dopack |
| openwindow | dopessimism |
| openwindow | doproj_org_tda |
| openwindow | doreindex |
| openwindow | edit_baseyear |
| openwindow | e_cpb_ga |
| openwindow | e_cpb_wky |
| openwindow | genmsgwindow |
| openwindow | getfiltcond |
| openwindow | getthese |
| openwindow | go_general |
| openwindow | help |
| openwindow | incr_baseyear |
| openwindow | list_avg_fact |
| openwindow | list_engine |
| openwindow | list_tot1 |
| openwindow | optselect |
| openwindow | opt_fact1 |
| openwindow | opt_fact2 |
| openwindow | opt_personnel |
| openwindow | opt_save |
| openwindow | org_nets |
| openwindow | pess_scan |
| openwindow | project_tda |
| openwindow | recalc_tda |
| openwindow | recalc_year |
| openwindow | recomp_center |
| openwindow | recomp_lab |
| openwindow | remove_empty |
| openwindow | remove_unlinked |
| openwindow | rev_pessimism |
| openwindow | showmemory |
| openwindow | source_use |
| openwindow | tda_whatif |
| openwindow | tech_base_ihoh |
| openwindow | tempupgrade |
| openwindow | te_tda_org |
| openwindow | total_engine |
| openwindow | tot_exp1 |
| openwindow | tot_exp2 |
| openwindow | tsamt |
| openwindow | upgrone |
| openwindow | user_defined |

| Called Routine | Calling Routine |
|---|---|
| openwindow | user_totals |
| openwindow | view_capital |
| openwindow | view_capmaj |
| openwindow | view_center |
| openwindow | view_corecap |
| openwindow | view_ctda |
| openwindow | view_foe_factors |
| openwindow | view_internal |
| openwindow | view_main_factors |
| openwindow | view_major |
| openwindow | view_off |
| openwindow | view_orgs |
| openwindow | view_personnel |
| openwindow | view_products |
| openwindow | view_rates |
| openwindow | view_revenue |
| openwindow | view_revtypes |
| openwindow | view_skills |
| openwindow | view_sources |
| openwindow | view_support |
| openwindow | view_tda_org |
| openwindow | warnem |
| openwindow | whatif |
| optselect | accept_rates |
| optselect | addnewfile |
| optselect | alloc_one |
| optselect | alloc_wky |
| optselect | bpm (main) |
| optselect | copydata |
| optselect | delete_lab |
| optselect | del_allbut |
| optselect | del_personnel |
| optselect | del_record |
| optselect | del_revenue |
| optselect | docheck |
| optselect | doload |
| optselect | dopack |
| optselect | dopessimism |
| optselect | doproj_org_tda |
| optselect | doreindex |
| optselect | doviewtext |
| optselect | eval_toggle |
| optselect | e_factor |
| optselect | e_revenue |
| optselect | incr_baseyear |
| optselect | list_avg_fact |

| Called Routine | Calling Routine |
|---|---|
| optselect | opt_save |
| optselect | pessfilt |
| optselect | pess_scan |
| optselect | post_repl |
| optselect | project_tda |
| optselect | recalc_all |
| optselect | recalc_lab |
| optselect | recalc_tda |
| optselect | remove_empty |
| optselect | remove_unlinked |
| optselect | setdest |
| optselect | source_use |
| optselect | te_tda_org |
| optselect | tgt_toggle |
| optselect | toggle_list |
| optselect | user_defined |
| optselect | user_totals |
| optselect | whatif |
| optselect | xmemo |
| opt_calc | e_opt_pers |
| opt_calc | opt_fact |
| opt_disp | e_opt_pers |
| opt_fact | opt_personnel |
| opt_fact1 | opt_fact |
| opt_fact2 | opt_fact |
| opt_list | opt_personnel |
| opt_list1 | opt_list |
| opt_list2 | opt_list |
| opt_list3 | opt_list |
| opt_personnel | whatif |
| opt_save | opt_personnel |
| opt_view | opt_personnel |
| opt_view1 | opt_view |
| opt_view2 | opt_view |
| opt_view3 | opt_view |
| orblank | e_capital |
| orblank | e_internal |
| orblank | e_personnel |
| orblank | e_revenue |
| org_measure | list_tda4 |
| org_nets | list_center |
| pad | amcc2 |
| pad | amcc5 |
| pad | bpm (main) |
| pad | choosemenu |
| pad | copydata |

| Called Routine | Calling Routine |
|---|---|
| pad | core_dollars |
| pad | core_tot |
| pad | ctreport |
| pad | ctr_toggle |
| pad | disp_capital |
| pad | disp_contract |
| pad | disp_expense |
| pad | disp_external |
| pad | disp_foe_guts |
| pad | disp_internal |
| pad | disp_wkyrs |
| pad | doload |
| pad | doviewtext |
| pad | getthese |
| pad | help |
| pad | intl_diag |
| pad | ispath |
| pad | list_center |
| pad | list_pess1 |
| pad | list_tot1 |
| pad | loadrevs |
| pad | load_foe_factors |
| pad | l_main |
| pad | l_menu |
| pad | oksrc |
| pad | one_measure |
| pad | opt_disp |
| pad | org_measure |
| pad | org_nets |
| pad | post_totals |
| pad | put_factor |
| pad | rem_ts_cost |
| pad | rerecalc_tda |
| pad | retrieve_costs |
| pad | show_arr |
| pad | split_chart |
| pad | total_engine |
| pad | tot_exp1 |
| pad | tot_exp2 |
| pad | user_defined |
| pad | user_totals |
| pad | view_corecap |
| pad | writescreen |
| pcttoggle | opt_personnel |
| pessfilt | rev_pessimism |
| pess_adj | pess_scan |

| Called Routine | Calling Routine |
|---|---|
| pess_adj_exp | pess_scan |
| pess_scan | dopessimism |
| pess_show | alloc_cost |
| pess_show | dopessimism |
| popq | corefilt |
| popq | e_pessimism |
| popq | user_defined |
| popq | user_totals |
| post_repl | view_capital |
| post_totals | recomp_center |
| post_totals | recomp_lab |
| post_totals | rem_ts_cost |
| project_tda | tda_whatif |
| proj_org_tda | doproj_org_tda |
| proj_org_tda | project_tda |
| put_array | amcc4 |
| put_array | avgload |
| put_array | e_capital |
| put_array | e_capmaj |
| put_array | e_internal |
| put_array | e_major |
| put_array | e_per_item |
| put_array | e_pessimism |
| put_array | e_rev_item |
| put_array | e_support |
| put_array | pess_adj |
| put_array | pess_adj_exp |
| put_array | pess_scan |
| put_array | post_repl |
| put_array | post_totals |
| put_array | put_factor |
| put_array | put_totals |
| put_array | view_capmaj |
| put_array | view_internal |
| put_array | view_major |
| put_array | view_support |
| put_cap | e_corecap |
| put_factor | accept_rates |
| put_factor | e_factor |
| put_factor | recomp_foe |
| put_totals | post_totals |
| put_totals | recomp_foe |
| put_totals | recomp_lab |
| readbkwd | readlinebkwd |
| readfwd | initscreen |
| readfwd | readlinefwd |

| Called Routine | Calling Routine |
|---|---|
| readjust | source_use |
| readlinebkwd | readscrbkwd |
| readlinebkwd | scrollfile |
| readlinefwd | readscrfwd |
| readlinefwd | scrollfile |
| readscrbkwd | scrollfile |
| readscrfwd | scrollfile |
| recalc_all | view_center |
| recalc_lab | disp_foe |
| recalc_tda | opt_personnel |
| recalc_tda | tda_whatif |
| recalc_year | eval_toggle |
| recalc_year | e_tda_what |
| recalc_year | opt_save |
| recalc_year | project_tda |
| recalc_year | recalc_tda |
| recalc_yr | proj_org_tda |
| recalc_yr | recalc_year |
| recalc_yr | show_overall |
| recalc_yr | te_tda_org |
| recalc_yr | view_tda_org |
| recomp_center | recalc_all |
| recomp_foe | recomp_lab |
| recomp_lab | recalc_all |
| recomp_lab | recalc_lab |
| reloaddata | e_opt_pers |
| reloaddata | opt_fact |
| removeone | remove_empty |
| remove_empty | sys_edit |
| remove_unlinked | assorted |
| rem_old_names | user_defined |
| rem_old_names | user_totals |
| rem_ts_cost | recomp_center |
| rerecalc_tda | recalc_tda |
| restscreen | closewindow |
| restscreen | doit |
| restscreen | scrollfile |
| retrieve_costs | source_use |
| retrieve_costs | tech_base_ihoh |
| retrieve_costs | tot_exp1 |
| retrieve_costs | tot_exp2 |
| rev_pessimism | whatif |
| savepsf | user_defined |
| savepsf | user_totals |
| scrollbkwd | scrollfile |
| scrollfile | doviewtext |

| Called Routine | Calling Routine |
|---|---|
| scrollfwd | scrollfile |
| sel_foe | view_capital |
| sel_foe | view_corecap |
| sel_foe | view_foe_factors |
| sel_foe | view_personnel |
| sel_foe | view_revenue |
| sel_foe | view_totals |
| sel_lab_foe | copydata |
| sel_lab_foe | delete_lab |
| sel_lab_foe | del_allbut |
| sel_lab_foe | doload |
| sel_lab_foe | list_avg_fact |
| sel_lab_foe | pessfilt |
| setdest | amcc1 |
| setdest | amcc1a |
| setdest | amcc1b |
| setdest | amcc1c |
| setdest | amcc1d |
| setdest | amcc1e |
| setdest | amcc2 |
| setdest | amcc3 |
| setdest | amcc4 |
| setdest | amcc5 |
| setdest | amcc_ihoh |
| setdest | balance1 |
| setdest | balance2 |
| setdest | balance3 |
| setdest | core_dollars |
| setdest | core_qc |
| setdest | core_tot |
| setdest | docheck |
| setdest | intl_diag |
| setdest | list_avg_fact |
| setdest | list_engine |
| setdest | list_pess1 |
| setdest | list_tda1 |
| setdest | list_tda2 |
| setdest | list_tda3 |
| setdest | list_tda4 |
| setdest | list_tda5 |
| setdest | list_tot1 |
| setdest | opt_list1 |
| setdest | opt_list2 |
| setdest | opt_list3 |
| setdest | org_nets |
| setdest | source_use |

| Called Routine | Calling Routine |
|---|---|
| setdest | tech_base_ihoh |
| setdest | total_engine |
| setdest | tot_exp1 |
| setdest | tot_exp2 |
| setdest | tsamt |
| setdest | win_print |
| set_salary | e_personnel |
| shadowwin | openwindow |
| showdemomsg | bpm (main) |
| showeditmsg | alloc_one |
| showeditmsg | alloc_wky |
| showeditmsg | amccharts |
| showeditmsg | anal_details |
| showeditmsg | balances |
| showeditmsg | baseline |
| showeditmsg | bpm (main) |
| showeditmsg | choose |
| showeditmsg | choosemenu |
| showeditmsg | compare_wif |
| showeditmsg | corefilt |
| showeditmsg | ctr_toggle |
| showeditmsg | data_entry |
| showeditmsg | disp_capital |
| showeditmsg | disp_contract |
| showeditmsg | disp_expense |
| showeditmsg | disp_external |
| showeditmsg | disp_foe |
| showeditmsg | disp_internal |
| showeditmsg | disp_wkyrs |
| showeditmsg | dobrowse |
| showeditmsg | dopessimism |
| showeditmsg | doviewtext |
| showeditmsg | edit_personnel |
| showeditmsg | edit_revenue |
| showeditmsg | eval_toggle |
| showeditmsg | expenses |
| showeditmsg | e_capital |
| showeditmsg | e_capmaj |
| showeditmsg | e_^orecap |
| showeditmsg | e_cpb_ga |
| showeditmsg | e_cpb_wky |
| showeditmsg | e_ctda |
| showeditmsg | e_factor |
| showeditmsg | e_internal |
| showeditmsg | e_major |
| showeditmsg | e_off |

| Called Routine | Calling Routine |
|---|---|
| showeditmsg | e_opt_pers |
| showeditmsg | e_org |
| showeditmsg | e_personnel |
| showeditmsg | e_per_item |
| showeditmsg | e_pessimism |
| showeditmsg | e_product |
| showeditmsg | e_revenue |
| showeditmsg | e_revtype |
| showeditmsg | e_rev_item |
| showeditmsg | e_skill |
| showeditmsg | e_source |
| showeditmsg | e_support |
| showeditmsg | e_tda_org |
| showeditmsg | e_tda_what |
| showeditmsg | go_corecap |
| showeditmsg | go_general |
| showeditmsg | go_spec |
| showeditmsg | isinfile |
| showeditmsg | list_capital |
| showeditmsg | list_center |
| showeditmsg | list_corecap |
| showeditmsg | list_factors |
| showeditmsg | list_personnel |
| showeditmsg | list_pessimism |
| showeditmsg | list_rates |
| showeditmsg | list_revenue |
| showeditmsg | list_tda_org |
| showeditmsg | list_tda_wif |
| showeditmsg | list_totals |
| showeditmsg | okapn |
| showeditmsg | okass |
| showeditmsg | okcat |
| showeditmsg | okdc |
| showeditmsg | okext |
| showeditmsg | okfact |
| showeditmsg | okfoe |
| showeditmsg | okgrp |
| showeditmsg | okintlab |
| showeditmsg | oklab |
| showeditmsg | okoper |
| showeditmsg | okorg |
| showeditmsg | okpers |
| showeditmsg | okpos |
| showeditmsg | okps |
| showeditmsg | okskl |
| showeditmsg | oksrc |

| Called Routine | Calling Routine |
|---|---|
| showeditmsg | okwky |
| showeditmsg | oky[illegible] |
| showeditmsg | opt_fact |
| showeditmsg | opt_fact1 |
| showeditmsg | opt_fact2 |
| showeditmsg | opt_list |
| showeditmsg | opt_personnel |
| showeditmsg | opt_view |
| showeditmsg | rev_pessimism |
| showeditmsg | sys_edit |
| showeditmsg | tda_whatif |
| showeditmsg | te_tda_org |
| showeditmsg | tgt_toggle |
| showeditmsg | ts_amounts |
| showeditmsg | view_capital |
| showeditmsg | view_capmaj |
| showeditmsg | view_center |
| showeditmsg | view_corecap |
| showeditmsg | view_ctda |
| showeditmsg | view_foe_factors |
| showeditmsg | view_internal |
| showeditmsg | view_main_factors |
| showeditmsg | view_major |
| showeditmsg | view_off |
| showeditmsg | view_orgs |
| showeditmsg | view_personnel |
| showeditmsg | view_products |
| showeditmsg | view_revenue |
| showeditmsg | view_revtypes |
| showeditmsg | view_skills |
| showeditmsg | view_sources |
| showeditmsg | view_support |
| showeditmsg | view_tda_org |
| showeditmsg | whatif |
| showrecmsg | eval_toggle |
| showrecmsg | tda_whatif |
| showrecmsg | te_tda_org |
| showrecmsg | tgt_toggle |
| showrecmsg | view_tda_org |
| show_arr | user_defined |
| show_arr | user_totals |
| show_line_length | user_defined |
| show_overall | e_tda_org |
| show_overall | te_tda_org |
| show_overall | tgt_toggle |
| source_use | expenses |

| Called Routine | Calling Routine |
|---|---|
| split_chart | amcc1 |
| split_chart | amcc1a |
| split_chart | amcc1b |
| split_chart | amcc1c |
| split_chart | amcc1d |
| split_chart | amcc1e |
| split_chart | amcc4 |
| sys_edit | bpm (main) |
| tda_eval_comp | e_tda_what |
| tda_eval_comp | recalc_yr |
| tda_tot | e_tda_org |
| tda_tot_comp | proj_org_tda |
| tda_tot_comp | recalc_year |
| tda_tot_comp | recalc_yr |
| tda_tot_comp | tda_tot |
| tda_tot_comp | te_tda_org |
| tda_tot_comp | te_tot |
| tda_tot_comp | tgt_toggle |
| tda_whatif | whatif |
| tech_base_ihoh | expenses |
| tempupgrade | upgrade |
| te_tda_org | view_tda_org |
| te_tot | te_tda_org |
| tgt_toggle | view_tda_org |
| time | list_engine |
| time | total_engine |
| tlbr | alloc_one |
| tlbr | corefilt |
| tlbr | disp_capital |
| tlbr | disp_contract |
| tlbr | disp_expense |
| tlbr | disp_external |
| tlbr | disp_foe |
| tlbr | disp_internal |
| tlbr | disp_wkyrs |
| tlbr | dopessimism |
| tlbr | e_cpb_ga |
| tlbr | e_cpb_wky |
| tlbr | go_general |
| tlbr | opt_fact1 |
| tlbr | opt_fact2 |
| tlbr | opt_personnel |
| tlbr | rev_pessimism |
| tlbr | tda_whatif |
| tlbr | te_tda_org |
| tlbr | user_defined |

| Called Routine | Calling Routine |
|---|---|
| tlbr | user_totals |
| tlbr | view_capital |
| tlbr | view_capmaj |
| tlbr | view_center |
| tlbr | view_corecap |
| tlbr | view_ctda |
| tlbr | view_foe_factors |
| tlbr | view_internal |
| tlbr | view_main_factors |
| tlbr | view_major |
| tlbr | view_off |
| tlbr | view_orgs |
| tlbr | view_personnel |
| tlbr | view_products |
| tlbr | view_rates |
| tlbr | view_revenue |
| tlbr | view_revtypes |
| tlbr | view_skills |
| tlbr | view_sources |
| tlbr | view_support |
| tlbr | view_tda_org |
| toggle_list | assorted |
| total_engine | user_totals |
| tot_cap1 | list_capital |
| tot_cap1 | list_center |
| tot_cap1 | list_totals |
| tot_carry | list_revenue |
| tot_ctda | e_ctda |
| tot_exp1 | expenses |
| tot_exp2 | expenses |
| tot_ext1 | list_center |
| tot_ext1 | list_revenue |
| tot_ext1 | list_totals |
| tot_int1 | list_center |
| tot_int1 | list_revenue |
| tot_int1 | list_totals |
| tot_netrev | list_revenue |
| tot_pers1 | list_center |
| tot_pers1 | list_personnel |
| tot_pers1 | list_totals |
| tot_pess_rev | list_pessimism |
| tot_rev1 | list_center |
| tot_rev1 | list_revenue |
| tot_rev1 | list_totals |
| tot_rev2 | list_center |
| tot_rev2 | list_revenue |

| Called Routine | Calling Routine |
|---|---|
| tot_rev2 | list_totals |
| tsamt | ts_amounts |
| ts_amounts | list_center |
| unlinked | remove_unlinked |
| upgrade | bpm (main) |
| upgrone | upgrade |
| user_defined | list_cap1 |
| user_defined | list_core1 |
| user_defined | list_ctda |
| user_defined | list_ext1 |
| user_defined | list_fac1 |
| user_defined | list_int1 |
| user_defined | list_off |
| user_defined | list_orgs |
| user_defined | list_pers1 |
| user_defined | list_pess_rev |
| user_defined | list_prod1 |
| user_defined | list_rev1 |
| user_defined | list_revtypes |
| user_defined | list_skills |
| user_defined | list_sources |
| user_defined | list_wif1 |
| user_totals | tot_cap1 |
| user_totals | tot_carry |
| user_totals | tot_ext1 |
| user_totals | tot_int1 |
| user_totals | tot_netrev |
| user_totals | tot_pers1 |
| user_totals | tot_pess_rev |
| user_totals | tot_rev1 |
| user_totals | tot_rev2 |
| view_capital | data_entry |
| view_capmaj | edit_revenue |
| view_center | baseline |
| view_corecap | data_entry |
| view_ctda | sys_edit |
| view_foe_factors | data_entry |
| view_foe_factors | disp_foe |
| view_internal | edit_revenue |
| view_main_factors | sys_edit |
| view_major | edit_revenue |
| view_off | sys_edit |
| view_orgs | sys_edit |
| view_personnel | data_entry |
| view_products | edit_revenue |
| view_rates | baseline |

| Called Routine | Calling Routine |
|---|---|
| view_revenue | data_entry |
| view_revtypes | sys_edit |
| view_skills | sys_edit |
| view_sources | sys_edit |
| view_support | edit_revenue |
| view_tda_org | tda_whatif |
| view_totals | baseline |
| warnem | accept_rates |
| warnem | avgload |
| warnem | bpm (main) |
| warnem | checklevel |
| warnem | copydata |
| warnem | doload |
| warnem | doviewtext |
| warnem | edit_foe_factors |
| warnem | edit_personnel |
| warnem | edit_revenue |
| warnem | est_factor |
| warnem | e_corecap |
| warnem | e_cpb_ga |
| warnem | findkey |
| warnem | genload |
| warnem | go_general |
| warnem | go_spec |
| warnem | incr_baseyear |
| warnem | isinfile |
| warnem | ispath |
| warnem | nofunction |
| warnem | norec |
| warnem | okontda |
| warnem | oksrc |
| warnem | opt_calc |
| warnem | proj_org_tda |
| warnem | setdest |
| warnem | toggle_list |
| warnem | upgrade |
| warnem | user_defined |
| warnem | user_totals |
| warnem | view_corecap |
| warnem | view_foe_factors |
| whatif | bpm (main) |
| whatsnext | del_personnel |
| whatsnext | del_record |
| whatsnext | del_revenue |
| whatsnext | move_personnel |
| whatsnext | move_revenue |

| Called Routine | Calling Routine |
|---|---|
| wiforg | compare_wif |
| wiforg | defineallfiles |
| wiforg | list_tda1 |
| wiforg | list_tda3 |
| wiforg | list_tda5 |
| wiforg | org_measure |
| wiforg | project_tda |
| wiforg | proj_org_tda |
| wiforg | te_tda_org |
| wiforg | view_tda_org |
| win_print | list_capital |
| win_print | list_center |
| win_print | list_corecap |
| win_print | list_factors |
| win_print | list_personnel |
| win_print | list_pessimism |
| win_print | list_rates |
| win_print | list_revenue |
| win_print | list_tda_org |
| win_print | list_tda_wif |
| win_print | list_totals |
| win_print | opt_list |
| wkyrs_adjust | tda_tot_comp |
| wkyrs_adjust | te_tda_org |
| writescreen | scrollfile |
| wr_arr | addupfactors |
| wr_arr | alloc_one |
| wr_arr | disp_capital |
| wr_arr | disp_contract |
| wr_arr | disp_expense |
| wr_arr | disp_external |
| wr_arr | disp_foe_guts |
| wr_arr | disp_internal |
| wr_arr | disp_rates |
| wr_arr | disp_wkyrs |
| wr_arr | dopessimism |
| wr_arr | e_personnel |
| wr_arr | e_revenue |
| wr_arr | pess_show |
| wr_arr | view_foe_factors |
| wr_arr | view_main_factors |
| wr_duls | disp_capital |
| wr_duls | disp_contract |
| wr_duls | disp_expense |
| wr_duls | disp_external |
| wr_duls | disp_foe_guts |

| Called Routine | Calling Routine |
|---|---|
| wr_duls | disp_internal |
| wr_duls | disp_rates |
| wr_duls | disp_wkyrs |
| wr_duls | e_capital |
| wr_duls | e_personnel |
| wr_duls | e_revenue |
| wr_uls | alloc_one |
| wr_uls | disp_capital |
| wr_uls | disp_contract |
| wr_uls | disp_expense |
| wr_uls | disp_external |
| wr_uls | disp_foe_guts |
| wr_uls | disp_internal |
| wr_uls | disp_rates |
| wr_uls | disp_wkyrs |
| wr_uls | dopessimism |
| wr_uls | e_capital |
| wr_uls | e_capmaj |
| wr_uls | e_cpb_ga |
| wr_uls | e_cpb_wky |
| wr_uls | e_internal |
| wr_uls | e_major |
| wr_uls | e_personnel |
| wr_uls | e_pessimism |
| wr_uls | e_revenue |
| wr_uls | e_support |
| wr_uls | pess_show |
| wr_uls | view_foe_factors |
| wr_uls | view_main_factors |
| wr_years | alloc_one |
| wr_years | disp_capital |
| wr_years | disp_contract |
| wr_years | disp_expense |
| wr_years | disp_external |
| wr_years | disp_foe_guts |
| wr_years | disp_internal |
| wr_years | disp_rates |
| wr_years | disp_wkyrs |
| wr_years | dopessimism |
| wr_years | e_capital |
| wr_years | e_capmaj |
| wr_years | e_cpb_ga |
| wr_years | e_cpb_wky |
| wr_years | e_internal |
| wr_years | e_major |
| wr_years | e_personnel |

| Called Routine | Calling Routine |
|---|---|
| wr_years | e_pessimism |
| wr_years | e_revenue |
| wr_years | e_support |
| wr_years | view_foe_factors |
| wr_years | view_main_factors |
| years | amcc2 |
| years | amcc3 |
| years | amcc5 |
| years | amcc_ihoh |
| years | bal_part1 |
| years | bal_part2 |
| years | intl_diag |
| years | list_avg_fact |
| years | list_pess1 |
| years | l_cap |
| years | l_exp |
| years | l_ext |
| years | l_int |
| years | l_main |
| years | l_supt |
| years | l_wkyrs |
| years | org_nets |
| years | split_chart |
| years | tech_base_ihoh |
| years | total_engine |
| years | tot_exp1 |
| years | tot_exp2 |
| years | tsamt |
| years | user_defined |
| years | wr_years |
| zaprecord | add_rec |